HYLEBOS WATERWAY

OCCIDENTAL COMMENTS REGARDING NATURAL RESOURCE TRUSTEES "SETTLEMENT REPORT"

REPORT ON A SEARCH OF NATIONAL ARCHIVES DOCUMENTS RELEVANT TO THE USE AND DISPOSAL OF HAZARDOUS SUBSTANCES AT NAVY/TODD SHIPYARD HYLEBOS MOUTH AREA

Prepared for
Occidental Chemical Corporation

December 5, 1995

Prepared by:
DUANE, MORRIS & HECKSCHER
Larry D. Silver
One Liberty Place
Philadelphia, PA 19103

TABLE OF CONTENTS

MAP INDEX

MAP NO.	DESCRIPTION
#1	A map of the Shipyard dated October 20, 1941 titled "Yard and Facilities Layout," which contains useful information such as the locations of catch basins, drainspouts and sewer lines and their outfalls into the Hylebos and Wapato Waterways and Commencement Bay,
#2	A map of the Shipyard dated March 25, 1942, prepared as part of a "Sprinklered Risk Report" by the Washington Surveying and Rating Bureau.
#3	A map of the Shipyard dated October, 1945, which includes a building key and identifies by a legend (probably added in 1946) of color codes showing areas of the Shipyard pertaining to ship construction activities, Naval Station and berthing activities, etc.
#4	A 1916 area-wide topographical map prepared by the U.S. Coast and Geodetic Survey, which shows the Shipyard area in a pre-developed condition.
#5	A June, 1919 "Property Map of Todd Dry Dock and Construction Corporation," showing the World War I-era Shipyard's layout.
#6	A November 25, 1943 "Plot Plan, Todd Pacific Shipyards, Inc. Tacoma Division" showing in detail the layout of the Shipyard following additional construction activities under the guidance of the U.S. Navy during the "War Emergency" following Pearl Harbor.
#7	A June 1, 1947 "Map Showing Proposed Berthing, U.S. Naval Station, Tacoma, Washington," with the names and locations of berthed ships shown.
#8	A June 30, 1947 "Map of U.S. Naval Station, Tacoma, Washington," with building key.
#9	A June 30, 1947 "Property Map" of the Shipyard "Showing Parcels Forming U.S. Naval Station, Tacoma, Washington."
#10	A 1954 map of the "U.S. Naval Station, Tacoma, Washington" as part of a "ons as of 30 JuGeneral Development Plan" and "Showing Conditine 1954."

MAP NO.	DESCRIPTION
#11	A map dated July 25, 1956 showing the "Existing Plan Layout" of the "Naval Industrial Reserve Shipyard, Tacoma, Washington."
#12	A 1957 map of the "U.S. Naval Station, Tacoma, Washington" as part of a "General Development Plan" and "Showing Conditions as of 31 December 1957."
#13	A September 1, 1961 Port of Tacoma area-wide map titled "General Plan, Port Industrial Development District."

DUANE, MORRIS & HECKSCHER

ATTORNEYS AT LAW

305 NORTH FRONT STREET
HARRISBURG, PA 17108-1003
(717) 237-5500

968 POSTAL ROAD
ALLENTOWN, PA 18103-9390
(610) 266-3650

ONE LIBERTY PLACE
PHILADELPHIA, PA 19103-7396
(215) 979-1000

FAX
(215) 979-1020

735 CHESTERBROOK BOULEVARD
WAYNE, PA 19087
(610) 647-3555

1201 MARKET STREET
WILMINGTON, DE 19801
(302) 571-5550

51 HADDONFIELD ROAD
CHERRY HILL, NJ 08002-4810
(609) 488-7300

DIRECT DIAL: (215) 979-1825

December 5, 1995

John R. Wheeler
Associate General Counsel
Occidental Chemical Corporation
Occidental Tower
5005 LBJ Freeway
P.O. Box 809050
Dallas, TX 75380-9050

RE: Hylebos Waterway

Dear John:

At your request, we are submitting a report on the results of our search for documents at the National Archives' Records Centers in Suitland, Maryland (where the vast majority of the Archives' military documents are located) and in Seattle, Washington (a regional archives facility) that might be relevant to the potential liability of the United States Government for response costs arising from the remediation of sediment contamination at the mouth of the Hylebos Waterway, a unit of the Commencement Bay Superfund Site remediation.

The potential for the Government's liability at Hylebos stems from (i) the U.S. Navy's (and before it the U.S. Maritime Commission's) intense supervision, involvement and partial ownership during World War II of a large and active shipbuilding facility (the "Tacoma Shipyard" or "Shipyard") located on a peninsula bounded by the Hylebos Waterway to the east, Commencement Bay to the north, the Wapato (more recently known as the "Blair" or "Port Industrial") Waterway to the west and the Hooker Electro Chemical Plant ("Hooker Plant") to the southeast, and (ii) the Navy's ownership from 1948 to 1960 and operation as a U.S. Naval Base of essentially the same facility from the end of World War II until 1958, during which the Navy used the

facility for berthing and maintaining escort aircraft carriers of the post-war Reserve Fleet.

Nearly all of the relevant documents we were able to find and copy in Suitland were from the Shipyard's operation during World War II, which is when the Shipyard was by far the most active during its history (employing over 28,000 at its peak) and substantial pollution causing activities were most likely to occur. In Seattle, by contrast, the majority of documents relevant to the Shipyard and the government's activities in the area concerned periods prior to and subsequent to World War II.

A few highlights of what we found are:

- Two large maps of the Shipyard, containing detailed and labeled diagrams of the buildings and activities located there, one dated October 20, 1941 and titled "Yard and Facilities Layout," (Map 1, attached hereto) which contains useful information such as the locations of catch basins, drainspouts and sewer lines and their outfalls into the Hylebos and Wapato Waterways and Commencement Bay, and the other dated March 25, 1942, prepared as part of a "Sprinklered Risk Report" by the Washington Surveying and Rating Bureau. (Map 2, attached hereto) Each of these maps are extremely helpful in locating activities discussed in various correspondence and reports. These maps, which are in fairly good shape, were copied for us by the archivists at Suitland on the equipment located there.

- A map of the Shipyard dated October, 1945, which includes a building key and identifies by a legend (probably added in 1946) of color codes showing areas of the Shipyard pertaining to ship construction activities, Naval Station and berthing activities, etc. (Map 3, attached hereto)

- Several other historical maps of the Shipyard, found in Seattle, including:

1. A 1916 area-wide topographical map prepared by the U.S. Coast and Geodetic Survey, which shows the Shipyard area in a pre-developed condition. (Map 4, attached hereto)

2. A June, 1919 "Property Map of Todd Dry Dock and Construction Corporation," showing the World War I-era Shipyard's layout. (Map 5)

3. A November 25, 1943 "Plot Plan, Todd Pacific Shipyards, Inc. Tacoma Division" showing in detail the layout of the Shipyard following additional construction activities under the guidance of the U.S. Navy during the "War Emergency" following Pearl Harbor. (Map 6)

4. A June 1, 1947 "Map Showing Proposed Berthing, U.S. Naval Station, Tacoma, Washington," with the names and locations of berthed ships shown. (Map 7)

5. A June 30, 1947 "Map of U.S. Naval Station, Tacoma, Washington," with building key. (Map 8)

6. A June 30, 1947 "Property Map" of the Shipyard "Showing Parcels Forming U.S. Naval Station, Tacoma, Washington." (Map 9)

7. A 1954 map of the "U.S. Naval Station, Tacoma, Washington" as part of a "General Development Plan" and "Showing Conditions as of 30 June 1954." (Map 10)

8. A map dated July 25, 1956 showing the "Existing Plan Layout" of the "Naval Industrial Reserve Shipyard, Tacoma, Washington." (Map 11)

9. A 1957 map of the "U.S. Naval Station, Tacoma, Washington" as part of a "General Development Plan" and "Showing Conditions as of 31 December 1957." (Map 12)

10. A September 1, 1961 Port of Tacoma area-wide map titled "General Plan, Port Industrial Development District." (Map 13)

- A report titled "Preliminary Internal Security and Passive Defense Survey of Seattle-Tacoma Shipbuilding Corp. (Tacoma Division)" (hereinafter "1942 Security Survey"), dated June 1, 1942, prepared by the Thirteenth Naval District, which contains several recommendations which reflect poor housekeeping and disposal practices with respect to hazardous materials, oils and garbage. (Exhibit 1, attached hereto)

- A series of reports in 1943, 1944 and 1945 titled "Industrial Health and Safety Survey of Todd Pacific Shipyards, Inc., Tacoma, Division, Tacoma, Washington," ("Health and Safety Reports")(Exhibits 2, 3 and 4, respectively, attached hereto) prepared by the "Industrial Health and Safety Program," a joint program of the Navy, Maritime Commission and War Shipping

Administration, which contain useful information on hazardous substance use as it related to worker's health and safety, including, e.g., a recommendation in the 1945 report that the Shipyard institute a "solvent control program", focusing on the wide use of solvents in various identified activities throughout the Shipyard and recommending a survey of operations involving the use of solvents and chemicals, including "paints, thinners, paint removers, adhesive compounds, etc." (We did not find the actual survey, if it exists.)

- A set of 28 photographs of the Shipyard taken in 1942. (We have requested that the Archives copy the photographs on special equipment at its College Park branch.)

- A report titled "The History of the Supervisor of Shipbuilding, USN, Tacoma, Washington - 16 March 1943 to 14 August 1945," (hereinafter "Wartime History") prepared in 1945 as part of the Navy's wartime history series, which compiles the history of the Navy's Supervisor of Shipbuilding at the Shipyard, describing his role and that of his office in relation to shipbuilding activities. (Exhibit 5, hereto) The report demonstrates the Navy's "operator" status at the Shipyard. The appendix to the document contains two aerial photographs of the Shipyard circa 1945, a 1943 map of the Shipyard noted above (Map 6, hereto), Naval personnel lists, a table of organization, a complete list of ships built and launched, etc.

The remainder of this report is organized as follows: (i) General history of the Shipyard, (ii) Ownership of the Shipyard (iii) Operation of the Shipyard, (iv) the use of hazardous substances at the Shipyard and the disposal of wastes.

I. GENERAL HISTORY OF THE SHIPYARD

The Shipyard had its origin in 1917, when a considerably smaller shipyard (but very large for its era) was built by Todd Seattle Dry Docks, Inc. ("Todd Seattle Dry Docks" or "TSDD"), a Todd Shipyards Corporation ("Todd Shipyards") subsidiary, for the construction of ships for the Navy for World War I.[1] Approximately 25 cargo ships were built, followed by construction

---

1 See Wartime History at 2 (Exhibit 5); "Todd Plant One of Largest in America," The Tacoma Tribune, April 22, 1917 (Exhibit 6). A June, 1919 map of the Shipyard (Map 5, hereto) shows its World War I - era layout. A 1916 Map (Map 4) suggests that the peninsula was undeveloped prior to construction of the World War I shipyard.

for the Navy during the early 1920s of three fast cruisers and a passenger liner launched in 1924.[2] In 1925, following a nationwide slump in the shipbuilding industry, all operations ceased at the Shipyard.[3] By 1933, the Shipyard had been idle for eight years, and the buildings were being razed. A demolition contract called for the property to be barren of structures upon completion.[4] According to a 1939 Tacoma newspaper article, the "Shipyard site, during the many years it was idle, had become a favorite 'jungle', a haven for hoboes from everywhere."[5]

In 1939, at the commencement of World War II, the United States Maritime Commission entered into contracts with a newly-created Todd Shipyards subsidiary named the Seattle-Tacoma Shipbuilding Corporation ("STSC")[6] (incorporated in 1939) to rebuild the Shipyard and construct five single-screw C-1 cargo vessels.[7] STSC leased the land from its sister-subsidiary Todd Seattle Dry Docks. At the time of the signing of the contracts, only one small building, a concrete power house, stood on the site.[8] Debris from the old Shipyard was cleared and "[h]uge stacks of old timbers were piled in a dozen places, clouding the

---

2 Wartime History at 2 (Exhibit 5). See "Keel for New, Steel Ship Laid Here, First Such Event in 17 Years," The Tacoma News Tribune, March 5, 1940 (Exhibit 7).

3 Wartime History at 2 (Exhibit 5).

4 Id.

5 See "Men and Machines Rushing Work at New Shipyard Site," The Tacoma Times, October 14, 1939 (Exhibit 8.)

6 See "Shipbuilding Revived by Requirements of United States Defense Program," The Tacoma News Tribune, 1941 (Exhibit 9). STSC owned another shipyard, located in Seattle. During the war, the Tacoma Shipyard was known as STSC, "Tacoma Division" and the Seattle shipyard as STSC, "Seattle Division." See 1942 Security Survey at 1-2 (Exhibit 1).

7 See Wartime History at 2 (Exhibit 5).

8 See Wartime History at 2-3 (Exhibit 5); "Keel for New, Steel Ship Laid Here, First Such Event in 17 Years," The Tacoma News Tribune, 1941 (Exhibit 7); See "Splendid Site Where Tacoma Will Again Build Big Ships," The Tacoma News Tribune, September 18, 1939 (Exhibit 10). See "Start First Shipway," The Tacoma News Tribune, November 14, 1939 (Exhibit 11).

atmosphere with smoke as they burned."[9] By February 1940, two launching ways, a large mold loft, a steel shed and three large whirley cranes were in operation, and the keel for the first cargo vessel was laid in March, 1940.[10] By January, 1941, five cargo vessels were under construction and over 2,000 men were working at the Shipyard.[11] The Shipyard used a new method for assembling the hulls of ships. "Formerly, plates were riveted together by workmen, piece by piece, on the bottom of a ship." In the new method, "[p]lates were first all welded together, making [a] mammoth 35-ton section, then set in place by . . .huge cranes."[12] A third shipway was added in May, 1941, along with two outfitting piers.[13] Additional contracts were signed with the Maritime Commission for the construction of cargo vessels in 1940 and 1941. In March, 1941, STSC signed a contract with the Navy for the construction of five gasoline tankers.[14] Construction of five new shipways began later that year.[15]

Following Pearl Harbor, the Navy began investigating the Shipyard as a location for the construction of warships, particularly small aircraft carriers, called "escort aircraft carriers" or "baby flat tops", then referred to by the Navy as AVGs and later in the war, as the ships were modified, as ACVs, and then CVEs.[16] By May, 1942, when the Shipyard had 14,000

---

9 "Men and Machines Rushing Work at New Shipyard Site," The Tacoma Times, October 14, 1939 (Exhibit 8); See "Keel for New, Steel Ship Laid Here, First Such Event in 17 Years," The Tacoma News Tribune, March 5, 1940 (Exhibit 7).

10 See Wartime History at 2-3 (Exhibit 5).

11 See "2000 Workers Busy on 5 Ships Building Here," The Tacoma News Tribune, January 27, 1941 (Exhibit 12); "Shipyard to Speed Output," The Tacoma News Tribune, July 8, 1941 (Exhibit 12); "Ship Building Looms Large on Economic Horizon," The Tacoma Times, 1941 (Exhibit 13). Launching of "Cape Flattery," The Tacoma Times, September 27, 1940 (Exhibit 14).

12 "Giant Robots 'Assemble' Ship," The Tacoma Times, March 21, 1940 (Exhibit 15).

13 See 1942 Security Survey at 3 (Exhibit 1).

14 Wartime History at 3 (Exhibit 5).

15 "Big Permit Taken Out," The Tacoma News Tribune, August 6, 1941 (Exhibit 16).

16 See Wartime History at 10 (Exhibit 5).

employees, the Navy began "the supervision of all of the work in the yard except on two freighters which are still being retained by the maritime commission."[17] In an agreement with the Maritime Commission signed in October 1942, the Navy assumed control of the Shipyard and all Maritime Commission contracts, and the Shipyard began the process of converting completed cargo ship hulls to AVGs.[18]

In April, 1944, STSC changed its name to Todd Pacific Shipyards, Inc. ("Todd Pacific" or "TOPAC", as it was known locally) and went by that name until the end of the war.[19]

The Shipyard was very active during the war, employing over 28,000 at the peak of production.[20] Eighty-five keels were laid and eighty-two ships launched from 1939 to the end of the war, including 56 escort aircraft carriers, plus several cargo ships, gasoline tankers, army transports, destroyer tenders and seaplane tenders.[21] The activity and large employment at the Shipyard had a substantial effect on the economic activity of Tacoma and is credited with causing a significant increase in its population.[22]

At the end of the war, the Navy began to prepare the Shipyard as a berthing station for deactivated and mothballed warships (mostly escort aircraft carriers built at the Shipyard)

---

17 See 1942 Security Survey at 5 (Exhibit 1).

18 See Wartime History at 3 (Exhibit 5); "Navy Now Rules Yard," The Tacoma News Tribune, May 1, 1942 (Exhibit 17).

19 See Wartime History at 1 (Exhibit 5); Memorandum from Todd Pacific Shipyards, Inc. to Department of Navy, dated June 10, 1944 (Exhibit 18).

20 See Wartime History at 18 (Exhibit 5).

21 See Wartime History, Appendix, p. 13 (Exhibit 5).

22 See "Shipyard Rumors Review Chronicle of Tacoma Achievement in 2 Wars," The Tacoma News Tribune, March 10, 1957 (Exhibit 19); "The Navy's Home Front - Navy Day, 1945," The Tacoma Times, October 27, 1945 (Exhibit 20); "Sky View of Tacoma's Warship Factory Released for Navy Day," The Tacoma News Tribune, October 27, 1945 (Exhibit 21). The population of Tacoma increased from 109,408 in 1940 to 143,673 in 1950.

and, in 1946, designated the site as the U.S. Naval Station, Tacoma.[23]

Following the war, the Navy and Todd Pacific engineered a swap (as described more fully below) whereby the Navy acquired all of Todd Pacific's ownership interests in the Tacoma Shipyard, and Todd Pacific received all of the Navy's interest in the Todd Pacific shipyard in Seattle.[24]

The postwar history of the Shipyard, as culled from newspaper articles, is described in the Port of Tacoma Intern's Report[25] as follows:

> In 1946 the Navy designated the site to become the U.S. Naval Station, Tacoma. Also in 1946, 2,600 employees were set to the task of mothballing the ships built at the site as a part of a deactivation program. Twenty-eight ships were berthed at the site at the end of hostilities, and a staff of approximately 1,285 people, 935 of which were navy personnel, was established to man the station. It was also reported that [in the late 1940s] a separate Navy operation known as the U.S. Navy Tacoma Group, Pacific Reserve Fleet was established and had approximately 550 personnel. This group was responsible for the ongoing maintenance of the ships. During the fighting in Korea, the Tacoma Group reactivated five escort carriers which later participated in that war. As of 1954 the Navy was still actively maintaining the berthed ships. This maintenance included scraping, sandblasting, and repainting of the ships' upper hulls to prevent corrosion. The Navy also used the site to ship

---

23 See "Topac Soon will be 'U.S. Naval Station'," The Tacoma Times, January 22, 1946 (Exhibit 22); "Reveal How Naval Station Will Operate," The Tacoma Times, February 7, 1946 (Exhibit 23); "Todd Shipyard Today," The Tacoma Sunday Ledger-News Tribune, June 9, 1946 (Exhibit 24).

24 See Section C.4 in the "Ownership" section of this report.

25 "Investigative Report of the Extent of Activities of the U.S. Navy along the Hylebos Waterway, Tacoma, Washington," June 3, 1994 ("Intern's Report") (Exhibit 25).

military cargo, 61,000 tons in the one year period of July, 1953 to June, 1954.[26] [27]

The Naval Station was closed in 1958 and the Navy sold the site to the Port of Tacoma in 1960.[28]

II. OWNERSHIP OF THE SHIPYARD DURING WORLD WAR II[29]

A. Introduction

As noted above, as of 1939, the Tacoma Shipyard was owned by Todd Seattle Dry Docks ("TSDD") and leased to the newly-formed Todd Shipyards subsidiary, Seattle-Tacoma Shipbuilding Corporation ("STSC"). From that starting point, because of various complex contracts between the government and STSC and expansion of the Shipyard through land acquisitions and leases, the ownership of the Tacoma Shipyard during the war is a rather complicated matter. As of 1942, even the Navy appeared unsure what the government owned and what TSDD and STSC owned.[30]

---

26 See "Naval Station Keeps Fighting Ladies' Ready," The Tacoma News Tribune, May 14, 1954 (Exhibit 26); "Along Tacoma's Waterfront," The Tacoma News Tribune, 1954 (Exhibit 27).

27 "Along Tacoma's Waterfront" The Tacoma Sunday News Tribune and Ledger, May 15, 1995 (Exhibit 28).

28 See "Final Payment," The Tacoma News Tribune, January 9, 1960 (Exhibit 29).

29 Prior to the sale of the Shipyard to the Port of Tacoma in 1960, an attorney prepared a report on the title of the property, which includes a summary as to how different parcels were acquired. See Attorney's Report on Title, undated (approximately 1958-1960) (Exhibit 30 attached hereto).

30 The 1942 Security Survey (Exhibit 1 hereto) reports at page 3:

Ownership of facilities is a rather complex situation. It is understood that Todds [sic] Shipyards Corporation owns all land comprising present plant site and leases same to Seattle-Tacoma Shipbuilding Corporation with approval of Maritime Commission and Navy. The original plant (?) of two shipways was completed about April, 1940, a third shipway was added in May 1941. Original units consisting of steel shop "A", mold loft building, sheet metal shop, shipways 1, 2 and 3, outfitting piers 1 and 2 and hospital-inspector building (formerly main office) are owned by the STSC. Expansion was commenced by USMC during the first part of 1941, it has been continuous since that date and is still in progress. Original USMC facilities Contract DA-MCc-112 dated 10 May 1941 in the amount of $3,975,000 was changed by

(continued...)

In documents reviewed at Suitland and Seattle, a distinction is frequently made between the ownership of the land on which the shipyard was located, and the ownership of the facilities, including buildings, materials, products and equipment. The following is a chronological discussion of the wartime and post-war ownership of the Shipyard, with information culled primarily from the Suitland documents, and supplemented by documents from the Seattle archives.

B. The Maritime Commission

During the spring of 1941, as part of a "facilities contract"[31] between the Maritime Commission and STSC, the Tacoma Shipyard was to be expanded by constructing "five shipways and the necessary attendant facilities at an estimated cost of $3,975,000."[32] Under the contract, expenditures made by STSC in connection with the expansion would be reimbursed by the Maritime Commission, which would thereby acquire ownership of the "facilities."[33] To effectuate the expansion, STSC entered into several subcontracts, including ones for construction, plumbing and heating.[34] The terms of the subcontracts had to be approved by the Director of Emergency Ship Construction, a Maritime

---

30(...continued)
Addendum No. 1, dated 8 December 1941 to Contract Mcc-1951 and by Addendum No. 2 dated 3 March 1942 was increased $3,595,400; thus USMC Facilities Contract Mcc-1951 is now in the amount of $7,570,400, and it is reported this amount will be materially increased in the near future. The USMC therefore owns the balance of facilities not aforementioned under STSC ownership, with certain exceptions such as the main office building and warehouse No. 1, which are said to be owned by STSC, with improvements thereon owned by USMC.

31 Contract DA-MCc-12, dated May 10, 1941. (We have not found a copy of the contract.)

32 See Letter from J.E. Schmeltzer, Emergency Ship Construction Division to R.J. Lamont, Seattle-Tacoma Shipbuilding Corp., dated April 17, 1941 (Exhibit 31).

33 See Wartime History at 37-38 (Exhibit 5).

34 See Telegram from Henry B. Wilkinson to J.A. Honsick dated May 1, 1941 (Exhibit 32); Letter from O. Alexander Mechlin to Harry M. Hope, dated August 15, 1941 (Exhibit 33); Agreement between Seattle-Tacoma Shipbuilding Corporation and General Construction Company for the construction of United States Maritime Commission Shipbuilding Facilities at Tacoma, Washington, dated May 10, 1941 (Exhibit 34); Agreement between Seattle-Tacoma Shipbuilding Corporation and Rautman Plumbing & Heating Company, dated May 10, 1941 (Exhibit 35).

Commission official.[35] STSC also entered into a lease with the Hooker Plant for land to be used for the Shipyard's activities.[36]

In 1941, the land on which the Shipyard was located continued to be owned by TSDD. In June 1941, STSC entered into a five-year lease with TSDD for the rental of the land on which the Shipyard was located.[37] The lease provided:

> It is understood that the Lessee [STSC] is engaged in the performance of contracts with the United States Maritime Commission and the United States Navy and that this lease at the option of the Lessee may, by giving written notice to the Lessor [TSDD] on or before the expiration date thereof, be extended until all contracts for the construction of vessels or parts thereof at or on the leased premises between the Lessee and the United States Maritime Commission and the United States Navy or other governmental agency, whether said contracts are now in existence or not, shall have been completed.[38]

The lease also provided that any buildings and/or improvements constructed on the leased premises would be regarded as the personal property of STSC.[39]

As part of the expansion effort, TSDD purchased approximately 10 acres of land on the Wapato (now the Blair) Waterway known as the "Sizer property."[40] STSC purchased the physical improvements on the Sizer property, consisting of three

---

35 See Telegram from J.E. Schmeltzer to Henry B. Wilkinson, dated May 6, 1941 (Exhibit 32).

36 See Lease between Hooker Electrochemical Company and Seattle-Tacoma Shipbuilding Corporation, dated May 1, 1941 (Exhibit 36).

37 See Lease Agreement between Todd Seattle Dry Docks, Inc. and Seattle-Tacoma Shipbuilding Corporation, dated June 16, 1941 (Exhibit 37).

38 Id. at 2.

39 Id. at 5.

40 See Letter from O. Alexander Mechlin to Harry M. Hope, dated August 15, 1941 (Exhibit 38).

buildings.[41] Although the Sizer property buildings were acquired subsequently by the Maritime Commission as part of the facilities contract, there was some dispute between STSC and the Maritime Commission regarding reimbursement for certain improvements made on the buildings, as such actions had not first been approved by the Maritime Commission.[42] Another item of dispute between STSC and the Maritime Commission was whether STSC's rental obligations to TSDD for the Shipyard and the Sizer property were reimbursable as a "cost" item under the facilities contract or under vessel construction contracts entered into between STSC and the government.[43]

In 1942, the Maritime Commission set about acquiring the "Peterman property," approximately 24 acres of land along the Wapato (now the Blair) Waterway, for purposes of further Shipyard expansion, including three additional ship berths and related buildings, facilities, and equipment.[44] The expansion on the Peterman property was necessary because the Maritime Commission continued to assign ships to the Shipyard for conversion.[45]

---

41 Id.

42 See Letter from O.A. Mechlin to Harry M. Hope, dated August 13, 1941 (enclosing Letter from O.A. Mechlin to H.F. Lalley, dated August 13, 1941)(Exhibit 39); Letter from E.S. Land to R. J. Lamont, dated October 21, 1942 (Exhibit 40).

43 See Letter from R.J. Lamont to Harry M. Hope, J.A. Honsick, and Wade H. Skinner, dated August 5, 1941 (Exhibit 41); Letter from H.L. Anderson to A.C. Freeman, dated January 8, 1942 (Exhibit 42). The disputes regarding the Sizer property and reimbursable expenses were referred to in the cover letter from R.J. Lamont of STSC enclosing the signed letter of intent for the facilities contract between the Navy and STSC. See Letter from R. J. Lamont to Navy Department, dated September 28, 1942 (Exhibit 46), infra, note 49. In October, 1942, the Maritime Commission offered to settle the matter for $85,000, but a settlement was not reached, and the offer was revoked in September, 1943. See Letter from E. S. Land to R. J. Lamont, dated October 21, 1942 (Exhibit 40), supra, note 42. It is unclear how the matter was resolved.

44 See Memorandum from J.E. Schmeltzer to United States Maritime Commission re: Seattle-Tacoma Shipbuilding Corporation, Tacoma, Washington -- Additional Facilities Contract for Conversion Program, dated February 2, 1942 (Exhibit 43); Memorandum from Carl W. Flesher to United States Maritime Commission, re: Seattle-Tacoma Shipbuilding Corporation, Tacoma, Washington -- Additional Facilities Contract for Conversion Program, dated March 3, 1942 (Exhibit 44).

45 Id. Ships initially built for one purpose could be converted to other purposes.

Eventually, the United States government condemned both the Sizer and Peterman properties, vesting ownership of the land in the government.[46] The condemnation judgment for the Peterman property provides specifically that certain items were included in the condemnation, including a 100,000 gallon water storage tank, the underground water and fire system, the sewage system, and the plumbing system.[47] A storage building on the Sizer property was also included in the condemnation.[48]

C. The Navy Department

1. The Letter of Intent

In September 1942, the Navy Department, acting through the Bureau of Ships, informed STSC that:

> [J]urisdiction over the facilities project now covered by contract DA-MCc-12, as amended, between the United States of America and your corporation, and comprising the addition to your shipyard in Tacoma, Washington, on a site leased by you from Todd Seattle Dry Docks, Inc., of shipbuilding facilities having a total estimated cost of $7,570,400 should be transferred by the [Maritime] Commission to the Department [of the Navy].[49]

In this "letter of intent," the Bureau of Ships indicated that the Navy would be taking over the contract between STSC and the Maritime Commission as of the end of September, 1942, and would also be requiring approximately $1,050,000 worth of additional facilities (to be paid for by the Navy).[50]

---

46 U.S. v. 23.283 Acres of Land, No. 385 (W.D. Wash. 1942) (includes judgments for both Peterman and Sizer properties) (Exhibit 45 with map).

47 Id.

48 Id.

49 See Letter of Intent dated September 11, 1942, (enclosed with Letter from R.J. Lamont to Navy Department, dated September 28, 1942) (Exhibit 46).

50 Id.

In an earlier Bureau of Ships memorandum (dated September 9, 1942), the Acting Chief of the Bureau of Ships noted that the facilities contract to be negotiated with STSC would be a "Bureau of Ships - Navy Type contract" providing for:

> (a) the Contractor's acquisition, construction and installation of the facilities, (b) the Contractor's use of the facilities upon payment of a rental to the Government, which rental will be at a nominal amount so long as the facilities are used solely for work ordered by the Navy on a cost-plus-a-fixed-fee basis, (c) Government reimbursement to the contractor for the true costs of the facilities, (d) the vesting of title to the facilities in the Government as reimbursement or delivery is made, (e) the granting to the Contractor of an option to purchase the facilities either at their fair or depreciated value at the time of purchase, and (f) the granting to the Government of an option to purchase the Contractor's shipyard in the event the Contractor does not purchase the Government-owned facilities.

(emphasis added).[51] In accordance with the provisions of this memorandum, the letter of intent set forth the structure for the administration of the project, which included extensive government supervision:

> [T]he Navy Department will be represented by the Chief of the Bureau of Ships, and he in

---

51 See Memorandum from C.A. Jones, Acting Chief of Bureau of Ships, to Secretary of the Navy, dated September 9, 1942 (Exhibit 47). Excluded from the facilities contract were "portable power-driven, loose and hand, small, expendable, or easily lost, broken or stolen tools, accessories or equipment." See Letter of Intent (Exhibit 46), supra, note 49. The Navy would not reimburse STSC for the cost of such items,as they were not considered allowable charges under the Facilities Contract. Id. For example, in February, 1944 the Navy refused to reimburse STSC for the costs of items such as the following: right hand tool holder; left hand tool holder; 1942 Harley-Davidson Motorcycle; Standard 26" Frame Men's and Women's Bicycles; Sport Windshield for Motorcycle Kick Stands and Klaxon Horns; 30" and 18" Stools; and Ash Tray stands. See Letter from R.E. Jones to Supervisor of Shipbuilding, Seattle-Tacoma Shipbuilding Corporation, dated February 28, 1944 (enclosing list of items not reimbursable under the facilities contract)(Exhibit 48).

> turn will be represented by (a) the Officer in Charge of Shipbuilding and Conversion, U.S.N., Seattle-Tacoma Shipbuilding Corporation, Tacoma, Washington, to whom shall be referred all matters concerning (i) the scope of the project, including the necessity for, and the size, capacity, and operating features and characteristics of, the various facilities and the dates when such facilities will be needed for use, (ii) the acquisition and installation of machine tools and production equipment, including approvals of purchase orders therefor, and (iii) any other part of the project not hereinafter specified as being referable to others, and (b) the Bureau of Yards and Docks which in turn will be represented by an Officer in Charge of Construction, to whom shall be referred all matters concerning the design, construction and alteration of the parts of the project which constitute Civil Works including (i) approvals of the selection and compensation of any architect, engineer or general building contractor, awards and terms of subcontracts and purchase orders, plans and specifications, and alterations and increases in costs not involving any change in the scope or any increase in the total estimated cost of the project, (ii) inspection and supervision, and (iii) expediting and acceptance of performance, in each case to the extent that such matter relates to Civil Works.[52]

Prior government approval of any subcontracts was also required.[53]

Significantly, the letter of intent contains a provision regarding ownership of the facilities under the contract:

> Title to each item of the facilities comprising the project, whether or not completed or assembled, and to

---

52 See Letter of Intent, supra, note 49 (Exhibit 46).

53 Id.

> all materials, supplies and equipment therefor and to all replacements thereof, shall vest in the Government as payment is made therefor by the Government or by you, or upon delivery thereof to the Government or to you, whichever of said events shall first occur.[54]

On September 28, 1942, the STSC accepted the terms of the facilities contract as set forth in the letter of intent.[55]

2. Expansion of the Shipyard

In 1943, the Navy set about acquiring additional parcels of land to be used in connection with the Shipyard. Through condemnation proceedings, the Navy acquired two parcels of land owned by Evelyn Clapp.[56] The first parcel consisted of approximately 14 acres and bordered the Hylebos Waterway.[57] The second Clapp parcel consisted of approximately 6.8 acres, and was located adjacent to the other Clapp property, but not

---

54 Id.

55 Id. (acceptance letter of intent was attached to cover letter form R.J. Lamont to the Department of the Navy, dated September 28, 1942). Although the actual contract between the Navy and STSC was not located, a typical provision in similar contracts regarding maintenance and risk of loss to the facilities provided that "[t]he Contractor is hereby expressly made responsible for any loss of or damage to the Facilities resulting from failure to [protect, preserve, maintain, and repair the facilities] to the extent that such loss or damage is found . . . to constitute a risk not of the type customarily covered by insurance." See Ship Repair Facilities Contract NObs-48, between Navy Department and Todd-Seattle Dry Docks, Inc., amendments to Article 11 (Maintenance, Insurance, and Risks of Loss and Liability), and related correspondence (Exhibit 49). A correspondence routing sheet with an entry dated January, 1943, indicates that this provision, known as "Article 11," had been accepted by Todd "on all of their facility contracts." See Correspondence routing sheet, with notations dated January, 1943 (Exhibit 50).

56 See U.S. v. 14.46 Acres of Land, No. 447 (W.D. Wash. 1942) and related condemnation documents (Exhibit 51). The government petitioned at first to acquire a leasehold interest in the land for the duration of the war and one year afterward. However, in June of 1943, the petition was amended, and a final judgment was entered in March, 1944 which granted the government a fee simple interest, subject to existing public utility easements. See also U.S. v. 6.8 Acres of Land, No. 571 (W.D. Wash. 1943) and related condemnation documents (Exhibit 52). This second parcel was acquired in fee simple outright.

57 See U.S. v. 14.46 Acres of Land, supra note 56 (Exhibit 51).

directly fronting the Hylebos.[58] During this same period, the Navy also acquired the following properties through condemnation, some parcels of which bordered the Wapato (now the Blair) Waterway: (1) approximately 47.83 acres of land, with various owners represented by a trustee, J.G. Dickson;[59] (2) approximately 16.2 acres of land owned by the Tacoma Harbor Lumber Company, Philadelphia Quartz Company, the City of Tacoma, and the Port of Tacoma;[60] and (3) approximately 16 acres of land owned by the Kanaskat Lumber Company and the Port of Tacoma.[61]

Correspondence shows that a conscious decision was made to acquire these lands through condemnation proceedings rather than leasing them, in light of "the heavy investment that the Navy will have on these lands."[62] The expansion of the Shipyard was commenced in order to accommodate the construction of the larger Navy vessels, especially aircraft carriers, and other

---

58 See U.S. v. 6.8 Acres of Land, No. 571 (W.D. Wash. 1943) and related condemnation documents (Exhibit 52).

59 See U.S. v. 47.83 Acres of Land, No. 483 (W.D. Wash. 1943) and related condemnation documents (Exhibit 53). The owners of the property included the Kanaskat Lumber Company, Puget Sound State Bank, T.D. Johnson, George and Mary Babare, the Foss Launch and Tug Company, and the Ship Lumber Mill Company. The government acquired this property in fee simple, without first seeking a leasehold interest.

60 See U.S. v. 16.2 Acres of Land, No.467 (W.D. Wash. 1943) and related condemnation documents (Exhibit 54). This land was condemned similarly to the Clapp property--the first petition was for a leasehold interest, but was amended to vest title in the government in fee simple.

61 See U.S. v. 16 Acres of Land, No. 494 (W.D. Wash. 1943) and related condemnation documents (Exhibit 55). This property was acquired outright in fee simple, subject to existing public utility easements.

62 See Letter from R.E. Jones, Chief of the Bureau of Ships, to the Officer-in-Charge of Shipbuilding & Conversion, USN Tacoma, Washington, dated January 30, 1943 (Exhibit 56). Interestingly, the government actually signed a lease for one parcel of land prior to acquiring it in fee simple by condemnation. This property, approximately 1.04 acres owned by the Foss Launch & Tug Company, was leased by the Navy for $1.00 per year for an indefinite lease term, by a lease dated February 8, 1943. See Lease between Foss Launch & Tug Company and the United States of America, dated February 8, 1943 (Exhibit 57). However, in a condemnation petition also dated February 8, 1943, the government sought fee simple title to this parcel. See U.S. v. 47.83 Acres of Land, No. 483 (W.D. Wash. 1943) and related condemnation documents (Exhibit 53), supra note 59.

requirements for the war effort.[63] The expansion was supervised by Navy personnel, and the costs incurred by STSC were reimbursed by the government. A June 15, 1943 Navy memorandum indicates that upon completion of the project, the total cost of facilities at the Shipyard would be approximately $14,425,000 -- "of which approximately $1,800,000 will represent the Contractor's investment and $12,625,000 will have been expended by the Government, of which the Navy Department will have provided approximately $6,853,000 and the Maritime Commission the balance."[64] There were several revisions to the facilities contract with STSC, mostly relating to additional expansion not accounted for in the original contract, all of which required Navy approval.[65]

Navy correspondence confirms the heavy investment by the Navy in the Shipyard and its expansion, as well as the Navy's views on its ownership interest. For example, J.L. McGuigan, the Supervisor of Shipbuilding at Tacoma, in an August, 1943 letter to the Chief of the Bureau of Ships regarding procurement of electricity, gas, and water for shore establishments, refers to the Shipyard as "dually owned by the contractor and the Government - the majority of ownership vesting in the Government."[66]

Interestingly, in June of 1943, the Navy considered acquiring STSC's interest in the Shipyard rather than continuing

---

63 See, e.g., Memorandum re: Seattle-Tacoma Shipbuilding Corporation -- Contract NObs-779, dated June 8, 1943 (Exhibit 58).

64 See Memorandum for the Secretary of the Navy, The Office of Procurement and Material, and the War Production Board, dated June 15, 1943 (Exhibit 59).

65 For example, during the summer of 1943, the Navy decided to strengthen and extend existing shipways and underwater launching ways at the Shipyard in order to permit the construction of auxiliary aircraft carriers of the Cimarron type. See Letter from F.H. O'Brien, Chief of Procurement and Material, to Chief of the Bureau of Ships, re: Proposed Expansion of the facilities Seattle-Tacoma Shipbuilding Company, Tacoma Washington, in the amount of $438,000, dated July 6, 1943 (with attachments) (Exhibit 59). This required a revision to the contract to provide for a $438,000 cost increase.

66 See Letter from J.L. McGuigan to the Chief of the Bureau of Ships, dated August 13, 1943 (Exhibit 60).

its dual ownership of the yard.[67] However, a memorandum from the Chief of the Bureau of Ships indicates that the Navy decided not to end the dual ownership, as acquiring full ownership was "not required for war purposes, and a present acquisition could be justified only if it could be shown that the yard as an integrated unit will be necessary for post war purposes."[68] Ultimately, as is discussed below, the Navy did later acquire full ownership of the Shipyard.

3. Hooker Property

STSC leased property from Hooker by lease dated May 1, 1941, and the lease was extended for several years after that.[69] The property was initially to be used for a parking lot, but, in 1943, the Navy negotiated a modification of the lease regarding certain government-owned facilities located on the leased Hooker property.[70] The facilities included, inter alia, the following: Fences; Maintenance Shop; Bus Loading Shelter; Board Walks; Asphalt Pavement; Concrete Pavement; Restaurant Storage Building; Restaurant, Portion of; Office; Railroad Track; Garage; Incinerator; Rag Storage Building; Nut & Bolt Salvage Building; Salvage Bins; Light Poles and Underground Cable; Parking Bumper Logs; and Catch Basins and Drainage Lines.[71]

It is unclear whether a formal modification was ever achieved, but the government-owned facilities were still on the property in 1945, when termination of the lease was being

---

67 See Letter from the Chief of the Bureau of Ships to the Supervisor of Shipbuilding, USN, Tacoma, Washington, dated June 21, 1943 (Exhibit 61).

68 Id.

69 See Letter from Harry G. Hill to Captain N.W. Gokey, dated September 16, 1943 (with enclosures) (Exhibit 62).

70 See Letter from the Chief of the Bureau of Ships to the Supervisor of Shipbuilding, USN, Tacoma, Washington, dated September 18, 1943 (Exhibit 63); Letter from W.L. Turney to Harry G. Hill, Esquire, dated June 5, 1944 (with enclosure) (Exhibit 64).

71 See Letter from W.L. Turney to Harry G. Hill, Esquire, dated June 5, 1944 (with enclosure) (Exhibit 64), supra, note 70. An "incinerator" also appears in a 1945 list of facilities. See, infra, note 238.

considered.[72] A correspondence routing sheet contemporaneous with these negotiations indicates that the Navy recommended termination on the basis of its having adequate time to remove any facilities it desired to remove, and to sell or abandon facilities not worth removing.[73] The lease was ultimately terminated as of January 31, 1946 for certain portions of the Hooker property, and on May 31, 1946 for other portions.[74]

In February 1948, Hooker and the government entered into another lease, dealing with the encroachment of a government-owned building and electrical facilities onto Hooker property.[75] Under the lease, the government was permitted to maintain the cafeteria building and electrical distribution manholes and accessories, and was also granted the right to install and maintain sewer lines and accessories (including a grease trap) across a portion of Hooker property, for a five-year period. In addition, the government was granted limited use of certain Hooker railroad spur tracks for a twenty year period. In exchange for these licenses, the government paid $2,500.00 and transferred title to certain railroad trackage and switches and two government-owned buildings situated on Hooker property. The lease provided that, upon 30 days written notice, the government could renew the lease for three additional five-year terms. Documents from the Seattle archives indicate that the government renewed the lease through 1961.[76] In connection with the sale of the Shipyard to the Port of Tacoma in 1960, this easement was transferred to the Port of Tacoma, with Hooker's consent.[77]

---

72 See Correspondence Routing Sheet, dated December, 1945, with handwritten notations regarding termination of lease and removal of facilities from Hooker parcel (Exhibit 65).

73 Id.

74 See Letter from Hooker Electrochemical Company to Chief of the Bureau of Ships, dated November 23, 1945 (Exhibit 65).

75 Lease between Hooker and U.S. Government, dated February 13, 1948 (with diagram) (Exhibit 66).

76 Renewals of Lease between Hooker and U.S. Government dated February 28, 1951 and March 15, 1956 (Exhibit 66).

77 See Letter from C.E. Ocamb, General Services Administration to M.S. Erdahl, Port of Tacoma, dated December 29, 1959 (Exhibit 67); Letter from George Gentes, Hooker Chemical Corp. to General Services Administration, dated October 30, 1959 (Exhibit 67). In the letter from Hooker regarding the

(continued...)

4. Seattle - Tacoma Property Exchange

In May 1945, STSC, by then Todd Pacific Shipyards Inc, proposed an exchange of property between Todd Pacific and the government.[78] Both the Tacoma Shipyard and Todd Pacific's Seattle ship repair yard were dually-owned by Todd and the government, so Todd sought sole title of the Seattle yard in exchange for granting sole title in the Tacoma Shipyard to the government.[79] During the summer of 1946, the War Assets Administration delegated to the Navy Department authority to negotiate this transfer.[80] A correspondence routing sheet discusses negotiations:

> In a conference held in the Bureau of Ships on 11 July 1946, negotiations were completed and a trade agreement reached relative to the transfer of facilities, . . .
>
> A great deal of paper work is now necessary to consummate the deal as shown in the memorandum from the Counsel for the Bureau of Ships dated 23 July 1946.
>
> These various steps will probably not be completed before early 1947.[81]

In a December 17, 1946 memorandum to the U.S. Attorney General, N.L. Rawlings of the Bureau of Ships requested that the Attorney General

> approve the proposed exchange wherein the Todd Shipyards Corporation will pay the Government $1,079,701.00 for the Government-owned land and facilities furnished under

---

77(...continued)
assignment of the easement, Mr. Gentes notes "that the sewer in question has been abandoned and that all drainage formerly entering this branch has been diverted to a branch entirely within [government] property."

78 See Letter from Todd Shipyards Corporation to Navy Department (Captain Philip Lemler), dated May 24, 1945 (Exhibit 68).

79 Id.

80 See Letter from E.B. Gregory to Rear-Admiral C.H. Cotter, dated July 3, 1946 (Exhibit 69).

81 Id. (see handwritten notations on correspondence routing sheet).

> Contract NObs-48 exclusive of drydocks, and the Bureau of Ships will pay to Todd Shipyards Corporation #1,032,701.00 for the Todd-owned land and facilities at Tacoma.[82]

By warranty deed dated March 12, 1948, Todd conveyed the Tacoma property to the United States.[83] The property became the U.S. Naval Station, Tacoma.

5. Ownership Following World War II

In 1950, the Navy offered to lease out a warehouse building (Building 50) and the Commissioning Pier at the Tacoma Naval Station.[84] It is unclear, however, whether this parcel of property was ever in fact leased by a third party.

Correspondence beginning in 1956 reflects a proposal for "preliminary mobilization plans" whereby the Shipyard facilities would be transferred to Todd Shipyards Corporation.[85] An unexecuted license document reflects that the purpose of the license was "to authorize the interim use and occupancy of the licensed facilities as a Naval Industrial Reserve Shipyard for shipbuilding purposes, pending the execution of a formal negotiated contract between the USA (Dept. of the Navy) and the Licensee [Todd]."[86] The proposal involved the gradual transfer of certain facilities to Todd according to a schedule of transfer, with the license ultimately to be superseded by a formal

---

82 Memorandum from N.L. Rawlings to the Attorney General of the United States, dated December 17, 1946 (Exhibit 70).

83 See Warranty Deed dated March 12, 1948 and related title documents (Exhibit 71).

84 See Letter from Commandant, 13th Naval District, dated April 25, 1950 (enclosing Lease Prospectus) (Exhibit 72).

85 See, e.g., Letter from Commanding Officer, U.S. Naval Station, Tacoma to Supervisor of Shipbuilding, dated May 25, 1956; Letter from Supervisor of Shipbuilding to District Public Works Officer, dated November 6, 1956; Letter from Commander, Tacoma Group, Pacific Reserve Fleet to Supervisor of Shipbuilding, dated November 28, 1956; Letter from Commander, Tacoma Group, Pacific Reserve Fleet, to Supervisor of Shipbuilding, dated December 19, 1956 (all included as Exhibit 73).

86 See License for Non Federal Use of Real Property, undated and unexecuted (Exhibit 74).

negotiated contract.[87] However, we did not find any documents which indicated finalization of such a transaction, and it is clear from subsequent events that it was never finalized.

The U.S. Naval Station, Tacoma was slated for disestablishment in 1958, and the Navy's choices regarding ownership were to retain ownership and lease the facilities, or to sell the Shipyard subject to a National Security Clause.[88] The Navy's preference was to sell the Shipyard as a unit to a purchaser engaged in shipbuilding and ship repair, with a 20-year National Security Clause.[89] According to a disposal project proposal submitted to Congress by the Bureau of Yards & Docks, the Navy would retain approximately 8.33 acres of property, including improvements, for use as a site for the U.S. Navy and Marine Corps Reserve Training Center, with the remaining approximately 182.7 acres available for disposal by sale subject to a National Security Clause:

> Except for the 8.33 acres to be retained, this reserve shipyard will become on October 1, 1958, excess to current requirements of the Department of the Navy, but will not be excess to its mobilization requirements. It is proposed to dispose of the property subject to a 20-year National Security Clause to permit reactivation of the facility in support of its assigned mobilization mission. Since continued availability of this Shipyard is essential to National Defense, it is proposed to report the property to the General Services Administration as excess to the needs of the Department of the Navy for disposal subject to the above restrictions and subject also to the condition that it be sold as a unit to a purchaser engaged in shipbuilding and ship repair work; otherwise,

---

87 Id.

88 See Letter from Chief, Bureau of Ships to Assistant Secretary of Navy (Material), dated January 27, 1958 (Exhibit 75). A National Security Clause provides that for a certain period of time, the government, upon written notice, has the right to reclaim property it has previously sold should it deem such action necessary for national security purposes.

89 Id. See also Letter from Chief, Bureau of Ships to Chief, Bureau of Yards and Docks, dated March 20, 1958 (Exhibit 76).

> the purchaser must be acceptable to the Department of the Navy, and if such sale is not accomplished within one year from the date reported to General Services Administration, the installation be returned to Navy, for outleasing preferably as a unit to a company engaged in shipbuilding and ship repair or related work.[90]

During the winter of 1958-1959, the government advertised the sale of the Shipyard in local newspapers[91] and in targeted mailings to companies engaged in shipbuilding, ship repair and related industry.[92] It became apparent in February of 1959 that the Port of Tacoma was interested in purchasing the property, and the government focused on negotiations for the sale of the Shipyard to the Port.[93] The parties negotiated a Sales Agreement whereby the Port of Tacoma would acquire the Shipyard via Quitclaim Deed and Bill of Sale, for a purchase price of $2,125,000, subject to a 10-year National Security Clause.[94] The purchase price represented $1,664,000 for the real property and $461,000 for personal property.[95] Certain buildings and items of personal property were exempt from the National Security Clause, including some warehouses, an incinerator, and miscellaneous shipbuilding and ship repair-related equipment.[96]

---

90 See Disposal Project No. 177 Submission (undated) (Exhibit 77).

91 See Advertisements, dated December 1958, January 1959 and February 1959 (Exhibit 78).

92 See Letter from Franklin Floett to Senator John McClellan, dated November 19, 1959, enclosing "Explanatory Statement of Proposed Negotiated Sale of Surplus Real Property Submitted Pursuant to the Provisions of Section 203(e)(6) of the Federal Property and Administrative Services Act of 1949, as Amended." (Exhibit 79).

93 Id.

94 See Sales Agreement between United States and Port of Tacoma (dated 1959) (Exhibit 80); Quitclaim Deed and Bill of Sale, dated January 1, 1960 (Exhibit 81).

95 See Letter from C.E. Ocamb to John H. Binns dated December 30, 1959 (Exhibit 82).

96 See Letter from Department of Navy to General Services Administration, dated April 2, 1959, enclosing Standard Form 118a (Buildings,

(continued...)

In 1961, in exchange for $17,000 plus appraisal costs, the Port of Tacoma obtained a release of approximately 24 acres of land and two water towers from the National Security Clause.[97] Several years later, the Port of Tacoma was notified that it could purchase an early release of the rest of the Shipyard and facilities from the National Security Clause, but opted not to do so.[98]

III. OPERATION OF THE SHIPYARD DURING WORLD WAR II

A. Introduction

At the outbreak of World War II, private shipbuilding in the Pacific Northwest "practically ceased in the entire district and all available shipyards became engaged in Army, Navy, and Maritime Commission new construction and repair work."[99] Documents from Suitland and Seattle indicate that the Tacoma Shipyard was no different, and that Maritime Commission and Navy involvement permeated operations. The following is a summary of government control over and involvement with operations at the Shipyard.

B. The Maritime Commission

In May 1941, the Maritime Commission entered into a facilities contract with STSC for the expansion of the Shipyard.[100] Under the facilities contract, any subcontracts in connection with the expansion had to be approved in advance by the Maritime Commission, and expenditures made by STSC under the

---

96(...continued)
Structures, Utilities, and Miscellaneous Facilities) and Listing of Class 3 Property exempt from National Security Clause (Exhibit 83).

97 See Correspondence, Supplemental Deed and Appraisal relating to Release of Parcel "B" and water towers from National Security Clause (Exhibit 84).

98 See Letter from V.L. Barnes to Chief, Real Property Division, dated February 21, 1967 (and related documents) (Exhibit 85).

99 See Memorandum from Supervisor of Shipbuilding, USN, to Various Navy Officials regarding Wartime History - Office of Supervisor of Shipbuilding, dated September 19, 1945, at p. 6 (Exhibit 86).

100 See Section II.B., supra (discussion of Maritime Commission).

contract would be reimbursed.[101] The Maritime Commission also had approval rights over the lease of the land on which the Shipyard was located.[102] The lease was "drawn in accordance with [the Commission's] interpretation of the requirements under Article 26 of the Government Owned Facilities Contract DA-MCc-12, dated May 10, 1941." In addition, the Maritime Commission authorized Todd Seattle Dry Docks Inc. ("TSDD")'s purchase of the Sizer property as part of the expansion project.[103] In 1942, the Maritime Commission continued the expansion of the Shipyard by purchasing the Peterman property,[104] where additional facilities would be built for the conversion of ships.

The Maritime Commission was heavily involved in the operation of the Shipyard under the facilities contract. The Commission made decisions regarding insurance for the facilities through its Division of Insurance.[105] Monthly updates were required from the Shipyard regarding the total number of employees, the number of employees on each shift, the number of shifts per day, the number of actual working hours per shift, the number of days worked in each week, and number of employees absent or scheduled off on the day of the update.[106] In addition, the Commission kept track of the names of STSC's officers and their titles,[107] and had approval power over training programs for

---

101 Id. Similar contracts were later entered into with the U.S. Navy.

102 As stated above, the land was owned by Todd Seattle Dry Docks, Inc.

103 For a discussion of the dispute between the Maritime Commission and STSC over improvements to buildings on the Sizer property, see the "Ownership" section of this report.

104 For a discussion of the acquisition of the Peterman property, see the "Ownership" section of this report.

105 See Letter from J.E. Schmeltzer to Arthur C. Freeman, dated October 17, 1941 (Exhibit 87); Letter from Herman F. Lame to R.F. Palmer, dated April 8, 1942 (Exhibit 88).

106 See, e.g., Telegram from F.E. Van Riper to Shipyards, dated June 2, 1942 (Exhibit 89).

107 See, e.g., Letter from Arthur C. Freeman to Harry M. Hope, dated September 17, 1941 (Exhibit 90); Telegram from Arthur C. Freeman to Harry M. Hope, dated September 18, 1941 (Exhibit 91); Letter from H.L. Anderson to W.J. Turner, dated November 4, 1941 (Exhibit 92).

employees.[108] The Commission also analyzed and authorized various "schemes" for the expansion of the Shipyard based upon the Government's need for capacity to build ships.[109]

C. The Navy Department

1. The Supervisor of Shipbuilding

According to the Memorandum Accompanying the Wartime History,[110] the tasks of the Navy Department's office of the Supervisor of Shipbuilding were as follows:

> To administer Navy shipbuilding, conversion, completion, and repair contracts of Naval vessels at those commercial shipyards under the cognizance of the Supervisor of Shipbuilding:
>
> (a) to supervise the performance of all necessary technical and inspection work to see that satisfactory production is maintained and scheduled completion dates are met;
>
> (b) to insure that ships are constructed or repaired in accordance with contract terms, approved plans and specifications and that all work is done in an efficient, economical, and expeditious manner, and in accordance with contract terms and requirements;
>
> (c) to assist the contractors and all government agencies concerned in every practicable way in the execution of the contracts, and to insure that the workload is properly distributed by recommending assignment of prime contracts and allocating subcontracts;

---

108 See, e.g., Letter from Assistant Secretary of the Navy to Supervisor of Shipbuilding, dated May 29, 1942 (Exhibit 93).

109 See Letter from Arthur C. Freeman, Resident Plant Engineer to Herman F. Lane, Chief Plant Engineering Section, dated February 27, 1942. (Exhibit 94)

110 Memorandum from Supervisor of Shipbuilding, USN, to various Navy Officials regarding Wartime History - Office of Supervisor of Shipbuilding, dated September 19, 1945 (Exhibit 86).

> (d) to insure that the Office of the Supervisor of Shipbuilding is operated in compliance with Navy Regulations, Instructions for Superintending Constructors, Naval Inspection Manual, Bureau of Personnel Manual, Bureau of Supplies and Accounts Manual, Bureau of Ordnance Manual, and such other books or letters of instruction or directives as may be issued by the Navy Department from time to time.
>
> To act as Naval Inspector of Ordnance on matters pertaining to the installation of fire-control and ordnance equipment on ships building or being repaired in the Seattle district:
>
> (a) to insure conformity with approved plans and specifications, and to provide such performance tests as are necessary to insure its proper functioning.
>
> To carry out such policies and orders concerning military matters, labor relations, and other matters pertaining to contracts under the cognizance of the Supervisor of Shipbuilding, Seattle, Washington.[111]

Individual shipyards under the cognizance of the Supervisor of Shipbuilding "conducted all business through the Supervisor of Shipbuilding."[112]

From the Navy's point of view, efficient and expeditious shipbuilding during the wartime emergency was of the utmost importance to the National Defense.[113] To this end, the Navy closely supervised the activity at shipyards, requiring contractors to submit progress reports:

---

111 Id. (Memorandum at p. 9)(Exhibit 86).

112 Id. (memorandum at p. 11) (Exhibit 86).

113 See Memorandum from the Secretary of the Navy to All Chiefs of Bureaus, Commandants of Navy Districts and Navy Yards, Supervisors of Shipbuilding, etc., re: National Defense Program - Expedition and Prosecution of Work - Subcontracting, dated July 14, 1941 (with enclosures) (Exhibit 95).

> The contractor shall furnish the Supervisor with such reports on progress, number of men employed and their hours, and progress of materials purchased under subcontracts, as will keep him completely informed regarding progress on ships building and probable dates of completion. If the Supervisor is not satisfied with the progress indicated, he shall request the contractor to take immediate steps to remedy the situation. The Supervisor will make a complete report to the Bureau of Ships if he does not consider the action taken by the contractor to be adequate.[114]

Any "proposed departures from approved design or construction involving changes under the contract" had to be approved by the Bureau of Ships, through the Supervisor of Shipbuilding, and any such deviations were "to be kept to an absolute minimum."[115] In addition, the Supervisor of Shipbuilding for a shipyard was responsible for ensuring that contractors "put into effect a system of training so extensive as to insure sufficient men to expedite construction to the maximum."[116]

In April 1941, the Navy Department authorized a new branch office of the Supervisor of Shipbuilding to be opened at the STSC facility in Tacoma.[117] (In the previous month, March 1941, the Secretary of the Navy authorized the establishment of a Cost Inspection Office at the Shipyard in Tacoma, under the jurisdiction of the Supervisory Cost Inspector, Thirteenth Naval District.[118]) Initially, the Tacoma branch office was under the supervision of the Manager of the Puget Sound Navy Yard in Bremerton, Washington, with the Commandant of the Bremerton yard

---

114 Id. (excerpt from enclosure (c) to July 14, 1941 memorandum) (Exhibit 95).

115 Id.

116 Id.

117 See Letter from Assistant Secretary of the Navy to Chief of the Bureau of Ships, dated April 29, 1941 (Exhibit 96).

118 See Memorandum from Ralph A. Bard, Secretary of the Navy, to Supervisory Cost Inspector, Thirteenth Naval District, dated March 17, 1941 (Exhibit 97).

as the acting "Supervisor of Shipbuilding" at Tacoma.[119] In March 1943, however, the Navy authorized the creation of an office (not a branch office) designated as the "Supervisor of Shipbuilding, Tacoma, Washington," to be headquartered at the STSC yard.[120] Captain J.L. McGuigan assumed command of the office, and, at least initially, the only shipyard under his supervision was the STSC/Todd Shipyard at Tacoma.[121] The Wartime History states that he had a staff of approximately 145 150 (the number fluctuated), including both naval and civilian personnel.[122]

The responsibilities of the Supervisor of Shipbuilding in Tacoma were defined by the September 1944 statement of missions under the Navy Management plan:

> The mission of the Supervisor of Shipbuilding, Tacoma, under the direction of the Chief of the Bureau of Ships, the Commandant of the Thirteenth Naval District, and the Chief of the Office of Procurement and Material, and with additional duties as Naval Inspector of Ordnance, Tacoma, under the Chief of the Bureau of Ordnance, is as follows:
>
> (a) To complete, deliver, and fit out ships in accordance with contractual requirements and current Navy Department directives.
>
> (b) To comply with directives of the Commandant of the Thirteenth Naval District pertaining to military and other matters under the cognizance of the Commandant.
>
> (c) To keep fully informed relative to the management policies of the Todd Pacific Shipyards Inc., Tacoma, and of other

---

119 See Wartime History, at Appendix pp. 1-2 (Exhibit 5).

120 See id., at p. 1, Appendix pp. 1-2 (Exhibit 5).

121 Id. at p. 1 (Exhibit 5). After 1943, certain smaller shipyards in the Tacoma area were transferred to the jurisdiction of the Supervisor of Shipbuilding, Tacoma. Id., pp. 58-66.

122 Id. at p. 11.

> shipyards under this cognizance to insure that acceptable standards of performance are being accomplished in return for Government expenditures.
>
> (d) To render all possible assistance to contractors in achieving the most efficient fulfillment of contractual obligations by supplying technical advice and administrative suggestions and aid when requested, and by assuring that contractors make maximum use of all specialized services offered by the Navy Department and the Thirteenth Naval District activities.[123]

The responsibilities of the Supervisor of Shipbuilding, Tacoma, regarding relations with contractors were as follows:

> 1. To follow out the directions of the Chief of the Bureau of Ships' letter of 21 October 1943, file FS/S3-1(100) over EN28/A2-11.
>
> 2. To establish, or to insure that the contractors establish, organization charts and approved procedures clearly defining policies, contractors' responsibilities, etc., which will cover all matters necessary for the successful completion, fitting out, and delivery of vessels, and will include matters such as material handling, purchasing, general administrative regulations, etc.
>
> 3. To inspect the contractors' organizations periodically for "industry of employees" and report results of such inspection to the General Manager with appropriate recommendations relative to improvement.
>
> 4. To insure that the contractors maintain an adequate training program to improve the working efficiency of employees and to keep abreast of the labor turnover; and to maintain an educational policy to keep

---

123 Id. at pp. 5-6 (Exhibit 5).

contractors' personnel advised of pertinent matters, such as purposes for which vessels are constructed, necessity for alterations, etc.

5. To advise with the contractors relative to additional facilities considered necessary for the successful prosecution of the work and institute necessary action for procurement of needed facilities.

6. To bring in advisory personnel as considered necessary from time to time and encourage similar action by the contractor to the end of increased production.

7. To maintain cordial relations with the plant management of all contractors and also with the parent and controlling organization of Todd Pacific Shipyards, Inc., as represented by Mr. R.J. Lamont, Seattle, and Mr. John D. Reilly, New York City.

8. To stress the necessity of time element in war operations: 98% ship in use is of infinitely more value that 100% ship at the builder's yard.

9. To advise with the contractors relative to speakers, releases and other steps to build up the morale of employees.

10. To keep contractors advised of the conditions under which Army-Navy "E" awards will be made.

11. To approve the salaries of company officials from Superintendent up in the Todd Pacific Shipyards, Inc., Tacoma Division, Tacoma, Washington, since this yard is working entirely on a Cost-Plus-Fixed-Fee contracts.[124]

---

124 Id. at Appendix pp. 11-12 (Exhibit 5).

2. The Navy Takes Over

Following Pearl Harbor, in Spring and Summer of 1942 the Navy began the takeover of supervision of all of the work in the Shipyard from the Maritime Commission. The Navy's Wartime History states:

> "By October 1, 1942 the Maritime Commission had relinquished all rights and obligation to [shipyard] facilities, their contracts were cancelled or taken over by the Navy and the Navy assumed control of the Todd Tacoma yard.[125]

Prior to its ultimate takeover of the facilities at the Shipyard, the Navy was involved in certain activity at the yard. In March 1941, while STSC was building ships under contracts with the Maritime Commission, the Navy awarded a contract to STSC to build five gasoline tankers.[126] In August of 1942, STSC set up a school for its employees "because of the heavy demand for skilled personnel."[127] The school was open only to STSC employees and "the training program [was] sponsored by the Navy Department."[128]

In September 1942, the Navy sent the "Letter of Intent" to STSC, officially informing it of the arrangement by which the Navy assumed control of the Shipyard.[129] The four principal "control-exercising agencies" over the Shipyard were the

---

125 (emphasis added) See id. p.3, 6. A Local Tacoma newspaper headlined the takeover as "Navy Now Rules Yard." See The Tamacoma News Tribune, May 1, 1942 (Exhibit 17). Other Navy correspondence refer to the Navy's "taking over" the Shipyard. See Memorandum from S.M. Robinson, Chief of Office of Procurement and Material, to the Chief of the Bureau of Ships, dated March 6, 1942 (Exhibit 98).

126 See Wartime History, p. 3 (Exhibit 5).

127 See Letter from Chief of the Bureau of Ships to Army and Navy Munitions Board re: Training School for Machinists within the Tacoma Yard of the Seattle-Tacoma Shipbuilding Corporation, dated August 8, 1942 (Exhibit 99).

128 Id.; See, also, Memorandum from Assistant Secretary of Navy to Supervisor of Shipbuilding, dated July 24, 1942 (finding training program "acceptable to the Navy Department and Maritime Commission") (Exhibit 100).

129 See Wartime History, p. 3 (Exhibit 5).

Secretary of the Navy, the Bureau of Ships, the Thirteenth Naval District, and the Bureau of Naval Personnel.[130]

In its "Letter of Intent," the Navy Department Bureau of Ships informed STSC that the Navy would be taking over the projects formerly administered by the Maritime Commission, and, in addition, would be requiring additional facilities which STSC would be required "to acquire, construct and install."[131] Prior Bureau of Ships approval was required for all subcontracts and leases, and STSC was to submit certified bills to the Bureau of Supplies and Accounts for "all materials, supplies or equipment furnished or work done" and advance payments to subcontractors made with prior Navy approval.[132] The Navy was heavily involved in all aspects relating to the acquisition and construction of the additional facilities at the Shipyard.[133]

3. Navy Control

Under the facilities contracts, the Navy reimbursed STSC for such costs as expansion, materials, improvements, and construction.[134] The Navy's involvement in the Shipyard was not limited to reimbursement, however. Correspondence from the autumn of 1943 indicates that the Navy, through the Area Manpower Priorities Committee ("AMPC"), had authority over personnel issues such as assuring an adequate supply of manpower for the Shipyard and a "ceiling" on the number of employees at the Shipyard.[135] The Navy was also instrumental in securing housing

---

130 Id. at pp. 6-8.

131 See Letter of Intent (Exhibit 46), supra, note 49.

132 Id. See, also, Memorandum from Chief of Bureau of Ships to Supervisor of Shipbuilding, dated February 8, 1944 (Exhibit 101).

133 See Minutes of Facilities Conferences dated October 8, 1942 and October 13, 1942 (discussion of specific items including, e.g., additional facilities for Machine, Pipe & Electric Shops, cranes, extension of office buildings, cafeteria, telephones) (Exhibit 102).

134 Several cost estimate memoranda were found in the Bureau of Ships correspondence files in Suitland.

135 See Letter from C.S. Gillette to A.F. Hardy, dated November 10, 1943 (with enclosures) (Exhibit 103). The AMPC had set a schedule of employment ceilings for the Shipyard, and STSC requested that they be permitted to have more employees than the schedules provided. In light of the

(continued...)

for new Shipyard employees[136] and establishing ratings priorities that allowed the Shipyard to secure equipment and supplies.[137] The Supervisor of Shipbuilding held weekly "Monday morning conferences" which were attended by Naval personnel and "key contractor officials."[138] These conferences were a forum for discussion of activities at the Shipyard, and "did much to secure a mutual understanding of problems and a successful solution for such problems."[139] The Navy also instituted periodic inspections of the Shipyard's "tools and equipment" which, under relevant shipbuilding contracts, were owned by the Navy.[140]

The Navy directed and planned Shipyard expansion and design[141], even to the extent of addressing the "revamping of the internal organization and administration of [the contractor] to insure maximum production[.]"[142] Both major facilities purchases and relatively routine purchases of equipment required the approval of the Supervisor of Shipbuilding.[143] The Supervisor of Shipbuilding also directed the Seattle-Tacoma Shipbuilding

---

135(...continued)
general efficiency of the Shipyard, and in order to allow STSC to meet production schedules set by the Navy, the company was permitted to exceed the ceiling. See, also, Memorandum from Chief of Bureau of Ships to Chief of Bureau of Yards and Docks, dated December 21, 1943 (approved by Navy of transfer of employee from Navy payroll to civilian payroll) (Exhibit 104)

136 See Memorandum from Chief, Bureau of Ships to Assistant Secretary of the Navy, dated January 27, 1945. (Exhibit 105)

137 See Letter from Chief Engineer, STSC, to Priorities Committee, Army-Navy Munitions Board, dated April 25, 1942 (Exhibit 106).

138 See Wartime History, p. 16 (Exhibit 5). Samples of minutes from these weekly meetings are attached as exhibits to the Wartime History, at Appendix pp.65-68.

139 See Wartime History, p. 16 (Exhibit 5).

140 See Letter from C.R. Faust, Supervisor of Shipbuilding, to Todd Pacific Shipyards, Inc., Tacoma Division, dated May 28, 1945 (Exhibit 107).

141 See, e.g., Memorandum from E.L. Marshall, Chief of Bureau of Yards and Docks, to STSC, dated September 3, 1943 (Exhibit 108).

142 See, Memorandum from Commandant, Puget Sound Navy Yard, to Chief of the Bureau of Ships, dated November 2, 1942 (Exhibit 109).

143 See Memorandum from Chief of Bureau of Ships to Supervisor of Shipbuilding, dated March 9, 1944 and attached correspondence (Exhibit 110).

Corporation to take steps to maintain "plant security and passive defense protection", including the providing of "transformers for heating plant so that heat will not be cut off during blackouts," to which STSC complied.[144] The Navy also directed the movement of equipment among various shipyards.[145]

The Navy reimbursed STSC for repair work it performed on Government-owned property following accidents. For example, when an acetylene gas explosion occurred on one of the shipways in 1943, the Navy reimbursed STSC for repairs to nearby facilities and equipment, as allowed by the Navy pursuant to relevant contracts with STSC.[146]

One document indicates that the Navy was somewhat self-conscious about its potential status as an "operator" of the Shipyard even during the 1940s, many decades before the passage of CERCLA. In 1945, the Supervisor of Shipbuilding, Tacoma investigated the possibility of obtaining from the Tacoma City Light Company a reduction in electric rates for the Navy Commissioning Warehouse and Dock. Apparently, Tacoma City Light would reduce the electric rates if the Navy stated that the facilities were "operated by the Navy."[147] The Supervisor of Shipbuilding, Tacoma asked the Chief of the Bureau of Ships how he should proceed. The Chief responded:

> In the opinion of the Bureau, the unqualified statement that the Navy Commissioning Warehouse and Dock is "Operated by the Navy" is not strictly a fact, principally because this establishment is included as part of the facilities contract held by Todd Pacific

---

144 See, Memorandum from Assistant Secretary, STSC, Tacoma Division to Supervisor of Shipbuilding, page 3, dated February 10, 1942 (Exhibit 111).

145 See Letter from Contracting Officer, Bureau of Ships, to STSC, dated July 10, 1943 (directing locomotive to be transferred from Tacoma Shipyard to Todd Galveston Dry Docks) (Exhibit 112).

146 See Memorandum from Chief, Insurance Division, to Chief of the Bureau of Ships, dated January 20, 1944 (Exhibit 113); Memorandum from the Chief of the Bureau of Ships to the Office of Supervisory Cost Inspector, dated January 28, 1944 (Exhibit 114). See, also, Memorandum from P.R. Chambers to Office of Procurement and Material (Insurance Division), dated October 2, 1944 and attached documents (Exhibit 115).

147 See Memorandum from V.C. Norton, Supervisor of Shipbuilding, Tacoma, to Bureau of Ships, dated January 13, 1945 (Exhibit 116).

> Shipyards, Inc. However, the facts in the case fully justify the following statement which the Supervisor is authorized to make to Tacoma City Light:
>
> > "The Navy Commissioning Warehouse and Dock is Navy-owned and the Navy pays all expenses connected with its operation. A share of the actual operation is performed by the Contractor, while the Navy accomplishes the remainder; in both cases the supervision in all of its ramifications being the direct responsibility of the Navy."[148]

On a Bureau of Ships' route slip accompanying the correspondence, it is stated: "Code 152 warns against stating that Warehouse and Dock are operated by the Navy. Recommend that Supervisor state facts only."[149]

a. Production and Facilities

The Supervisor of Shipbuilding was actively involved in dealing with problems of production:

> Shortly after he reported to Tacoma, Capt. McGuigan, in a letter to the Navy Department reviewing the conditions at the Todd yard, advised the Bureau of Ships that the production schedule could not possibly be met. It was emphatically stated that the equipment needed improvement and that the contractor's organization needed bolstering before estimates of future ship deliveries could be based on performance rather than on

---

148 Memorandum from Chief of Bureau of Ships to Supervisor of Shipbuilding, Tacoma, dated February 3, 1945 (Exhibit 116).

149 Route Slip, January 25, 1945 (Exhibit 116). We do not know what Code 152 provides.

> optimistic hope. The contractor made a study, in conjunction with the Supervisor and able personnel from the Navy Yard Puget Sound, of shop layouts, facilities, and estimates. As a result of the survey, the following results were obtained:
>
> (1) Establishment of an outfitting department for the completion of ships after launching
>
> (2) Establishment of a facilities development program
>
> (3) Establishment of the position of ship superintendent for the coordination of all craft
>
> (4) Establishment of a production planning department
>
> (5) Establishment of procedure for the improvement of all welding activities
>
> (6) Establishment of a policy for the maximum use of written procedures and instructions.
>
> A resultant change in the management and general organization in the Todd yard improved the situation and the productivity of the company. The industry of company employees was always of paramount interest to the Supervisor. Keeping informed by inspection and records, Capt. McGuigan conferred constantly with the presiding officials of Todd Pacific on this important factor.[150]

Through the "Technical Section" of his office, the Supervisor of Shipbuilding kept track of the technical details of

---

150 See Wartime History at pp. 16-17 (Exhibit 5).

the Shipyard, including inspection of the facilities, expansion issues,[151] and review of plans and proposals submitted by STSC.

> The Technical Officer was granted authority by the Supervisor to approve plans or plan changes except those of the most vitally important type, such as permanent ballast plans, and to sign all technical correspondence with the exception of that dealing with office policy, criticism of the contractor or naval activities, and correspondence of especial significance to the Bureau of Ships. Although the Technical Section was small, it was able to check closely all plans and proposals submitted by the contractors and sub-contractors under the jurisdiction of this activity. Much time and government money were saved by this check, not only in actual mistakes discovered, but in the knowledge that their work was being reviewed, the contractors were led to check more closely themselves before submitting plans and proposals for approval.[152]

The "Facilities Section" was responsible for the administration of the facilities contracts with STSC, including "insur[ing] proper accountability, use, and maintenance of government owned facilities."[153] Some of the tasks of the Facilities Section included: continuous periodic surveys of

---

151 The Supervisor of Shipbuilding, Tacoma, was closely involved with the structuring of the expansion of the Shipyard. For example, in the late spring of 1944, it was determined that Pier 4 needed extensive repair work in order to accommodate anticipated Navy shipbuilding. Correspondence from May and June of 1944 indicates the Navy's significant input regarding specific work to be done, as well as cost estimates for the work. See Letter from J.L. McGuigan to Chief of the Bureau of Ships, dated May 17, 1944 (Exhibit 117); Memorandum re: Seattle-Tacoma Shipbuilding Co., NObs-779 - Replacement of Outfitting Wharf #4, dated May 23, 1944 (Exhibit 118); Miscellaneous Telegrams re: Pier #4, dated May-June 1944 (Exhibit 119); Letter from C.R. Lee, Jr. to Chief, Bureau of Ships, dated June 9, 1944 (Exhibit 120).

152 See Wartime History, p. 27 (Exhibit 5).

153 See Wartime History, p. 31.

tools, equipment, and civil works; checking of maintenance, damage, and accident reports; requesting the contractor to establish, amplify, or change procedures covering such surveys as necessary in accordance with the terms of the contract; responsibility for fire protection, air raid precaution, fire fighting, and fire prevention; and making progress or other required reports to the Bureau of Ships.[154] Facilities meetings, attended by the Facilities Officer, Navy Cost Inspector, and officials from STSC, were held "for the discussion of problems of both technical and accounting natures and were resolved in agreements reduced to writing."[155]

The "Material Section" of the Office of the Supervisor of Shipbuilding had responsibility over government- and contractor-furnished material.[156] Officials from this section reviewed, approved and processed purchase orders, and kept track of materials purchased and used at the Shipyard.[157] Other divisions within the Supervisor of Shipbuilding office were the "Allowance and Fitting Out Section,"[158] the "Contract and Contract Termination Section,"[159] and the "Small Yards Section."[160]

---

154 Id. at 31-33.

155 Id. at 34.

156 Id. at 40.

157 Id. at 40-44.

158 Responsible for coordination of "allowance list data from approved plans, spare parts lists, specifications, purchase orders, and other sources," as well as the "assembly and loading of stores" onto vessels. See Wartime History, pp. 48-50 (Exhibit 5).

159 Responsible for "adjudication of contract changes and handling of progress payments." See Wartime History, pp. 51-57 (Exhibit 5).

160 Responsible for supervising "small shipbuilding yards in the Tacoma area with Navy contracts [which] were transferred from the cognizance of the Supervisor of Shipbuilding, Seattle, to that of the Supervisor in Tacoma." See Wartime History, pp. 58-65 (Exhibit 5). The yards included the following: Birchfield Boiler and Shipbuilding Co., Chilman Shipyard (Hoquiam, Washington), J.M. Martinac Shipbuilding Corp., Mojean and Ericson Shipyard, Nelson Boiler and Tank Co., Tacoma Boat Building Co., and Western Boat Building Co. Id.

b. Non-Navy Work

Although STSC built ships almost exclusively for the government during the war, the company was permitted under the facilities contract to perform other work. However, if STSC wanted to perform such other work, it had to first obtain approval from the Navy. The facilities contract provided:

> The Contractor shall also have the right to use the Facilities for work other than work ordered by the Department on a cost-plus-a-fixed fee basis, provided that prior to any such use the Contractor and the Department shall have agreed in writing as to the amounts to be paid by the Contractor to the Government for such use, and that the Contractor shall at all times give such priority to work ordered by the Department as the Department shall from time to time require.[161]

One example of such non-Navy work performed by STSC was the conversion of the USS President Fillmore to a hospital ship in February of 1944.[162] The Bureau of Ships authorized such work to be performed "provided that new Navy construction work is not interfered with or delayed and that such conversion is performed under a cost-plus-a-fixed fee contract or under fixed price contract negotiated on basis that price does not include any charge for use of Navy facilities."[163]

---

161 See Letter from Seattle-Tacoma Shipbuilding Corporation to Bureau of Ships, dated January 29, 1944 (citing Article 10 of Facilities Contract NObs-779) (Exhibit 121).

162 See Telegram from Bureau of Ships to Supervisor of Shipbuilding, Seattle-Tacoma Shipbuilding Corporation, dated February 15, 1944 (Exhibit 122).

163 Id.

c. Health, Safety and Security

The Navy periodically surveyed the Shipyard for deficiencies in health[164], safety and security, made recommendations for improvements and monitored the Shipyard's progress in making improvements in subsequent surveys. As discussed below in more detail in the "Hazardous Substances" section of this report, the health, safety and security recommendations sometimes addressed waste disposal practices and use of chemicals, solvents, oils and transformers.

4. Post-War Operations

In 1945, the Navy proposed a plan for the berthing of ships at the Tacoma Shipyard. Government officials corresponded with STSC (by then Todd Pacific Shipyards, Tacoma Division) to provide details on the structuring of the work needed for the berthing of ships, including dredging, extending existing piers, and constructing additional piers.[165] A June 10, 1946 letter from Vice-Admiral E.L. Cochrane, Chief of the Bureau of Ships, to Senator Warren Magnuson indicates that, in 1946, Navy personnel were primarily responsible for the deactivation of ships at the Tacoma yard.[166] In his letter, Vice-Admiral Cochrane notes that civilian personnel were still involved in work at the Shipyard, but that deactivation work was more appropriately done by Navy personnel:

> Not only at the Todd-Pacific Shipyard at Tacoma, but in all shipyards engaged in the ship deactivation program, the regularly

---

164 For example, the Navy and Maritime Commission undertook a survey of respiratory illness of employees at the Shipyard. See Letter from Daniel Ring, Director, Division of Shipyard Labor Relations, U.S. Maritime Commission, to James Lamont, President, STSC, dated February 11, 1944 (Exhibit 123). See, also, Letter from W.E. Steele, M.D. to Phillip Drinker, U.S. Maritime Commission, dated June 4, 1943 (Exhibit 124).

165 The Navy determined that the land which had been leased from Hooker was not necessary for the planned berthing of ships at the Shipyard, and, thus, the Hooker lease was terminated. For a discussion of the Hooker property, see "Ownership" section of this report.

166 See Letter from E.L. Cochrane to Honorable Warren G. Magnuson, dated June 10, 1946 (Exhibit 125). Admiral Cochrane's letter was in response to Senator Magnuson's forwarding a letter to him from a labor union representative complaining that deactivation work was being done by Navy personnel rather than civilian personnel.

> assigned personnel accomplishes most of the deactivation work. This work is not in the nature of ship repair or conversion work, but is closely analogous to the regularly assigned duties of ship personnel in the maintenance and upkeep of a fleet afloat. One of the prime requisites is a thorough knowledge of the particular vessel being deactivated and, of course, by using the ship's personnel, a great deal of time and expense can be saved in bringing the deactivation program to full accomplishment as quickly as possible.[167]

5. U.S. Naval Station, Tacoma

Following the exchange of property between Todd Pacific and the government, the Shipyard became the U.S. Naval Station, Tacoma.[168] In July 1946, there were approximately 32 inactive CVEs berthed at the Shipyard in the Hylebos and Wapato Waterways, and in Commencement Bay.[169]

In 1950, the Commanding Officer of the Naval Station requested funds to repair the piers at the Shipyard in order to accommodate a reactivation of CVEs in anticipation of their use in the Korean conflict. The following activities were requested:

> At the present time the Tacoma Group, Pacific Reserve Fleet is reactivating a ship at this activity and indications are that more ships may be expected to be reactivated here in the near future. In addition to the reactivation

---

167 Id.

168 As of May 27, 1946, several different governmental activities were being carried on at the Shipyard. These activities were described in several memoranda pertaining to a dispute between Todd and the Navy over how overhead charges were to be prorated among the activities. See Memorandum from Todd Pacific Shipyards, Inc. to Bureau of Ships and Bureau of Supplies and Accounts, dated May 27, 1946 (Exhibit 126); Memorandum from H.N. Wallin, Supervisor of Shipbuilding, Tacoma, to Bureau of Ships and Bureau of Supplies and Accounts, dated June 16, 1946 and attached memoranda (Exhibit 127).

169 See Berthing Arrangement Chart, Inactive Fleet, Naval Station, Tacoma, Washington, July 3, 1946 (Exhibit 128).

> of ships MSTS is using the Naval Station, Tacoma as a Port of Embarkation for troops and equipment for the Far East. If present world conditions continue both these activities will probably continue their present use of the piers.[170]

In 1956, the Navy considered reconstructing Pier 4, on the Port Industrial Waterway (formerly Wapato Waterway),[171] but abandoned the plans, opting instead to maintain Pier 4 "at a level adequate to meet the needs of the Tacoma Group, Pacific Reserve Fleet."[172] However, the Port of Tacoma's plans to further develop the Port Industrial Waterway would limit the space available for berthing along Pier 4.[173] As Pier 4 was in need of substantial repair, it was proposed that some of the ships berthed at the shipyard be relocated so as not to necessitate the use of Pier 4 for berthing purposes, or at least minimum repairs be made to the pier for berthing fewer ships.[174]

IV. USE AND DISPOSAL OF HAZARDOUS SUBSTANCES

As one might expect, information in the Suitland and Seattle documents on the use and disposal of hazardous substances was limited; however, there were specific references to general disposal practices as well as dangerous substance use. This information, along with the more general information we have been

---

170 Letter from Commanding Officer, U.S. Naval Station, Tacoma, to Chief, Bureau of Ships, dated July 21, 1950 (Exhibit 129).

171 See, e.g., Letter from Commander Tacoma Group to Commandant Thirteenth Naval District dated February 17, 1956 (Exhibit 130); Letter from Commandant, Thirteenth Naval District to Chief of Naval Operations, dated March 6, 1956 (Exhibit 131).

172 See Letter from Chief of Naval Operations to Commandant Thirteenth Naval District, dated May 14, 1956 (Exhibit 132).

173 See Letter from Commander, Pacific Reserve Fleet to Commandant, Thirteenth Naval District, dated December 17, 1956 (Exhibit 133); Letter from Commandant, Thirteenth Naval District to Chief, Bureau of Yards and Docks, dated February 26, 1957 (Exhibit 134); Letter from Commandant, Thirteenth Naval District to Commander, Pacific Reserve Fleet, dated February 27, 1957 (Exhibit 134); Letter from Commander, Pacific Reserve Fleet to Commandant, Thirteenth Naval District, dated March 7, 1957 (Exhibit 135).

174 Id.

able to collect, is strongly indicative of substantial hazardous substance disposal that is relevant to the Hylebos Waterway contamination.

By way of introduction, the basic process of the Shipyard's ship construction was summarized by the 1942 Sprinklered Risk Report as follows:

> Main processes consist of laying out ships forms in mold loft where wood templates are made. Templates are taken to layout section of steel fabricating shops where steel plates are marked for cutting and welding operations. After the steel plates are cut to desired shapes they are assembled and welded together to form ship sections which are placed in position in shipways by means of large travelling cranes where the ships are constructed and finished for launching. The ships are completed alongside fittingout piers at northeast corner and along east side of plantsite.[175]

We organize this section by Shipyard activities that likely were sources of contamination:

A. Painting Operations

Painting was a substantial activity at the Shipyard. According to the 1943 Health and Safety Survey, as of July, 1943, when the workforce at the Shipyard totalled 23,651 men and women, 823 were assigned to the Paint Department, 656 as painters and 167 as "scalers". Scalers used power-driven tools to remove rust from steel surfaces prior to painting.[176]

Painting operations were conducted at several locations at the Shipyard, including at the eight shipways along Commencement Bay where the new hulls were constructed, the main paint shop (which was located no more than about 50 feet off of the Hylebos Waterway and a few hundred feet north of the Hooker Plant), a

---

175 1942 Security Survey, Exhibit G - Sprinklered Risk Report (Exhibit 1). See, also, "Making Patterns Big Preliminary Job in Fabricating Steel Freighters," The Tacoma Sunday Ledger, March 9, 1941 (Exhibit 136).

176 1943 Health and Safety Survey at 6, 24 (Exhibit 2).

second paint shop located on the other side of the Shipyard near the Wapato Waterway, the Navy Commissioning Pier, just south of the Hooker Plant, the four outfitting piers, one immediately along the Hylebos (Pier No. 3) just north of the Hooker Plant, two just to the west of the Hylebos extending into Commencement Bay (Piers No. 1 and 2), and the other along the Wapato (Pier No. 4).[177]

1. The Shipways

It appears that much of the painting of newly-constructed hulls was performed at eight shipways at the end of the peninsula along Commencement Bay.[178] The Shipways "were heavy plank and timber structures elevated from a foot or so above ground to several feet above tidewater."[179] According to the 1943 Health and Safety Survey, of the 656 painters at the Shipyard in July, 1943, about 70 were "employed for maintenance work in the yard" with "the remainder," or 586, "at work on the hulls".[180] As for scaling, "[v]ery much of the scaling" work was done on the skids and assembly ways, "some on board ship." "Wet sand-blasting" was also used to remove scales before painting on "[s]ome skin plates." Most of the painting (approximately 80 percent as of July, 1943) was performed by hand brush, although towards the end of the war an increasing proportion was done by spraying. As of 1943, the shipyard was intending to move as much and eventually all of the spray painting of hulls to the graveyard shift "so the objections from men of other crafts will be a minimum."[181]

As of 1943, paints used on the ships included the following:

> Interior painting consists usually of one priming coat and one coat of fire retarding paint. No red lead is used.

---

177 Id. at 25-26.

178 Id. at 25.

179 See 1942 Security Survey at 8 (Exhibit 1).

180 1943 Health and Safety Survey at 25 (Exhibit 2).

181 Id. at 24-25.

> The cold plastic anti-fouling paint, 143E is used on the hulls and in the interior of pipes that are to carry salt water. At the present time cold plastic anti-fouling paint is applied by brush to the exterior of the hulls. It is the intention of the Paint Superintendent to have this done by spraying in the near future.
>
> Hot bitumastic enamel is used in some drain wells aboard the vessels.[182]

We have not found the chemical formula[183] and supplier of "anti-fouling paint 143E".[184]

The 1942 Security Survey for the Shipyard notes on page 27 that a "portable steel house" was "used as a paint shop at the ways." The survey recommended that the house "be provided with a steel floor or the house not located on plank structures as it was at the time of inspection, but kept south of the ways on solid ground."[185]

---

182 Id. at 25. The Intern Report (Exhibit 25) at page 4 cites a December, 1979 EPA document -- "Development Document for Proposed Effluent Limitations Guidelines and Standards for the Shipbuilding and Repair Point Source Category" -- for the following:

> Paints and spent paints contain the metal (Cu, Zn, Cr, & Pb) as well as hydrocarbons. Anti-foulant paints are particularly hazardous because they are designed to be toxic to marine life to keep the hull clean. Anti-foulants often contain organotin compounds which are highly toxic to some organisms. Hull-cleaning materials are most often dry abrasive sandblast grit. The grit by itself can be a source of suspended and settle-able solids pollution, however the grit is often found mixed with the spent paint it was used to remove, creating a compounded polluting effect.

183 We note that EPA announced on November 23, 1994 a Proposed Rule covering air toxic emissions from 23 types of coatings in ship painting operations. This Rule may have helpful information on the composition of ship paints.

184 Paint and thinner suppliers to the Shipyard included the Pittsburgh Paint Company and the W.P. Fuller Company of Tacoma.

185 1942 Security Survey, Internal Security Recommendations at 27 (Exhibit 1).

The Intern Report references telephone conversations with a wartime employee of the Tacoma Shipyard and another of the Bremerton Naval Shipyard, both of whom reported that it was the practice that when ships were scraped or pressure-washed, spent paint was allowed to fall in the water.[186]

2. The Outfitting Piers and the Navy Commissioning Pier

The Shipyard had four outfitting piers and a commissioning pier.[187] Outfitting Pier No. 3 was located along the west bank of the Hylebos north from the Hooker property to the end of the Peninsula. Outfitting Piers Nos. 1 and 2 were between Pier No. 3 and the Shipways at the end of the Peninsula. Outfitting Pier No. 4, along the Wapato Waterway, was added in 1942. The Navy Commissioning Pier also stretched along the Hylebos Waterway, but south of the Hooker Plant.[188] A sewage

---

186 See Intern Report at 5 (Exhibit 25). Another source of contamination at the shipways was launching lubricants. The lubricants were melted in wood-fired stoves just south of the shipways. See 1942 Security Survey, Internal Security Recommendations at 27 (Exhibit 1) "The tracks of the shipways were greased at low water so that the completed hulls would slide out more easily. This grease would slowly be washed away by wave action at higher water levels." Intern Report at 5 (Exhibit 25). A January 29, 1943 memorandum from J.L. McGuigan, then the Commandant of the STSC Shipyard, to the Chief of the Bureau of Ships notes that "[t]here are a large number of ships in the water at all times on which welding, burning, etc. is being conducted on a twenty-four (24) hour basis." (Exhibit 137).

187 The materials to be used to construct the Commissioning Pier were listed in a Memorandum from the Chief of the Bureau of Ships to the Army and Navy Munitions Board, dated October 31, 1942 (Exhibit 138). See, also, Memorandum from Supervisor of Shipbuilding to Chief of the Bureau of Ships, dated June 8, 1943 (regarding the construction of the marine elevator on the Commissioning Pier) (Exhibit 139).

188 Various documents indicate that the pilings for the piers and wharves were covered with creosote to prevent marine borer infestation. Telegrams between the Bureau of Ships and the Supervisor of Shipbuilding, Tacoma in 1943 note that 27 tons of arsenic trioxide were requested and made available for treatment on Shipyard pilings. (Exhibit 140) See, also, Telegram from Supervisor of Shipbuilding from Bureau of Ships, dated July 29, 1943 (Exhibit 141); Letter from Chief of Bureau of Ships to War Production Board, dated August 18, 1943 (Exhibit 142). A 1944 STSC report for its Seattle Division indicates that pilings were treated by a "mineralized cell" process, involving "the injection of a solution of copper and arsenic salts introduced through a rubber cap attached to the end of the pile." See "Report on Inspections of Shipways and Whirley Trestles," at p. 4, STSC, Seattle Division (Exhibit 143). The same report indicates that the solution could

(continued...)

system located just south of the large Commissioning Pier warehouse (and which served the warehouse) emptied into the Hylebos Waterway.[189]

Aerial photographs and other documents indicate that during World War II ships were docked at these piers for conversion from hulls to completed ships. According to the Intern Report, Phil Spaulding, the General Superintendent of Steel Construction for the Shipyard during the war, stated in a telephone conversation that painting, greasing and paint removal took place on the ships along the outfitting piers.[190]

Reserve Fleet ships were also berthed along the outfitting and Commissioning Piers from 1946 until circa 1958.[191] Painting of mothballed ships by the Navy occurred along the outfitting piers into the 1950s.[192] A May 14, 1954 newspaper article about the Shipyard reports:

> Of course, for the outside of the ship care must be taken to notice any rust spots starting to form, and these are scraped and a new protection of paint given.
>
> Kept in Trim

188(...continued) "leach out of holes in the surface of the pile, around knots and where bark has been removed and the wood subsequently damaged by drift." Id. at 4-5.

189 See Quitclaim Deed and Bill of Sale from United States of America to Port of Tacoma, dated January 1, 1960, at page 3 (Exhibit 144). See, also, Map 12. The Government retained the Commissioning Pier sewer lines in the sale to the Port of Tacoma. A 1959 letter accompanying the Draft Quitclaim Deed noted that the Port of Tacoma would need to secure a permit to use the line. See Letter from C.E. Ocamb, Chief, Disposal Branch, Public Buildings Service, to M.S. Erdahl, dated December 16, 1959 (Exhibit 145).

190 See Intern Report at 3-4 (Exhibit 25).

191 See, e.g., Berthing Arrangement Chart, Inactive Fleet, Naval Station, Tacoma, Washington, July 3, 1946 (Exhibit 128), and note 169, supra. See, also, Map 7.

192 See "Naval Station Keeps 'Fighting Ladies' Ready" Tacoma News Tribune, May 14, 1954 (Exhibit 26).

> Periodically the ships are taken to drydock and the underwater portion given an additional protective coating. During this same drydocking period machinery and equipment are checked to make sure that the ship is ready to sail and any repairs or improvements needed are effected.[193]

3. The Paint and Oil Building

The Paint and Oil Building, located within about 50 feet of the Hylebos Waterway, along outfitting Pier No. 3, and about 1000 feet north of the Hooker Plant, is a good candidate for being the origin of some of the Hylebos metals and solvent contamination. That is the case because -- as shown by the 1941 Yard and Facilities Layout map -- sewer lines from the Paint and Oil Building flowed directly into the Hylebos at the bulkhead line along the west edge of the pier.[194] That map also shows three drainspouts at the Paint and Oil Building connecting directly to those sewer lines.

The 1942 "Sprinklered Risk Report" for the Shipyard notes that the Paint and Oil Building was erected in 1941, covered an area of 50 x 78 feet (3900 square feet) and that the floors are "[c]oncrete on sand filled ground" and the walls "corrugated iron on a skeleton steel frame." The report notes that the building was used for "[p]aint shop and paint and oil storage."[195] A railroad spur extended from the middle of the peninsula between the Paint Shop and the Hylebos and, presumably, brought in paint along with various thinners and solvents.

The 1943 Health and Safety Survey describes the conditions at the Paint and Oil Building as follows:

> At Pier Number Three the paint shop is in a large fireproof building, having two sections separated by a fire-wall, one for mixing and storing paints, the other for sign and hat painting and for locker and toilet space.

---

193 Id.

194 See Map 1, attached hereto.

195 1942 Security Survey, Exhibit G - Sprinklered Risk Report (Exhibit 1 hereto).

> There is no spray booth at present. One is planned for the storage section of the building. It should, by all means, be installed as soon as possible. Outside of this building is a tank of hot caustic solution in which paint buckets are cleaned.[196]

The 1942 Security Survey also makes note of "large cracks in the mezzanine wooden floors at the Paint Shop[.]" The Survey goes on to say that "[c]ombustible materials can accumulate in these cracks[.]"[197]

A 1979 EPA Report on shipbuilding contaminants indicates that shipbuilding paints and spent paints typically contained lead, zinc, chromium and copper.[198]

A November 27, 1943 inventory of shipyard machinery and equipment identifies that "Paint Shop Equipment" included one "cleaning and degreasing tank, (Tag No. 15)", another "degreasing tank (Tag No. 30)", "300 feet [of] solvent hose", a "paint mill," four "paint spraying outfit[s]," two "paint mixing machine[s]," and 2 "spray guns."[199]

A 1959 study of the Shipyard[200] indicates that the Paint Shop continued to be used for that purpose in the 1950s and describes the Paint Shop, designated "Building 596", as follows:

---

196 1943 Health and Safety Survey at 25-26 (Exhibit 2).

197 1942 Security Safety, Internal Security Recommendations at 27 (Exhibit 1).

198 See Intern Report at 4 (Exhibit 25).

199 See Memorandum from F.H. Fay, Supervisory Cost Inspector, to Chief of the Bureau of Ships, dated November 27, 1943, enclosing "Interim Property Records Cards Contract Nobs-779 (Shipbuilding Facilities)" Inventory at p. 2 (Exhibit 146). A December 30, 1943 inventory notes that the Paint Shop also had "6 Pressure Tanks." (Exhibit 147); See, also, Memorandum from F.H. Fay, Navy Cost Inspector, STSC, Tacoma, Washington, to Chief of the Bureau of Ships, dated February 28, 1944 (Exhibit 148).

200 "Study of Naval Industrial Reserve Shipyard at Tacoma, Washington with Reference to its Acquisition by the Port of Tacoma", dated January 28, 1959 (hereinafter, "1959 Study of Naval Industrial Reserve Shipyard") (Exhibit 149).

Gen. Info.-	Built in '42 for paint ship for shipyard. Also recently used as paint shop by Navy. Located adjacent to Pier 3. Fire protection provided by automatic drypipe sprinkler system. Hot water heating service to building from converter hearing plant to Bldg. 546 which receives steam through underground main from central boiler plant in Bldg. 529. Recorded floor loading - 500 pounds per sq. ft.
Size -	Section 112' x 48' and 42' x 10'. Floor area 5796 sq. ft.
Construction-	Concrete foundation, galvanized corrugated steel roof. Walls of west section clay tile; east section galvanized corrugated steel.
Possible Future Use-	Shops and storage for ship scrapping activity.[201]

B. The Shops Building

The Shops Building was located along and about 50 feet to the west of the Hylebos Waterway and Outfitting Pier No. 3, at the Northeast corner of the Shipyard about 1000 feet north of the Hooker Plant. In the Shops Building were located the Shipyard's machine shop, electrical shop, pipe shop, copper shop and weld shop, as well as pipe, copper and electrical shop stores. The building was two stories, with dimensions of 130 x 264 feet (34,320 square feet). The first floor was rolled tar and gravel on sand-filled ground.[202]

---

201 Id. at 2-C6. That document (at page 1-3) also notes that "ship scrapping has been accomplished at wharf section of Pier 3."

202 See 1942 Security Survey, Exhibit G - Sprinkled Risk Report (Exhibit 1).

The Shops Building had twelve drainspouts and was surrounded by four catch basins. These drainspouts and catch basins emptied directly into the Hylebos to the east.[203]

To the south of the Shops Building and outdoors were two potential contamination-producing activities, a "pipe-cleaning vat" adjacent to the Pipe Shop and, to the southeast of the building along the Hylebos Waterway bulkhead line, a storage yard for "carboys"[204] of muriatic and sulfuric acid. (The railroad spur extends along the Outfitting Pier No. 3 just to the east of the bulkhead line.)[205] The 1941 Yard and Facilities Layout map shows a catch basin to the south of the Shops Building (probably near the pipe-cleaning vat), another catch basin just off the Southeast corner of the Shops Building, presumably where the carboys were located.[206] The 1942 Security Survey reports:

> Storage and use of chemical concentrates such as acids used in the pipe cleaning vat adjoining southend of shops building should also be under rigid control and kept in locked closets since they can also be used in sabotage work. Several carboys of muriatic and sulfuric acid were stored in the open yard adjoining the southeast corner of the shops building at the time of inspection. Whether or not the solution in the pipe cleaning vat is of sufficient strength to be a hazard from a sabotage standpoint should be investigated. If it is of sufficient concentration the vat should be enclosed with walls and the area kept locked when unattended.[207]

Sulfuric acid was used in shipbuilding for, inter alia, steel pickling and cleaning. Muriatic acid, another name for hydrochloric acid, was used for steel pickling, "brightening" and cleaning copper metals for piping.

---

203 See Map 1.

204 A carboy is a large glass bottle used to hold corrosive liquids.

205 See Map 1.

206 Id.

207 1942 Security Survey, Internal Security Recommendations at 29 (Exhibit 1).

C. Transformers

The Shipyard purchased and used many transformers.[208] Several

---

208 Purchase and inventory records show that a large number of transformers were brought to the Shipyard. In April and May, 1941, in two purchase orders the Seattle-Tacoma Shipbuilding Company ("STSC") purchased 4 and 43 new "200 KV transformers" from the Sundfelt Equipment Company in Seattle for $2,500 and $26,445.00 respectively for delivery to the Shipyard. (Eleven were received on July 29, 1941.) On July 28, 1941, the Shipyard placed an order for 172 "Bbls. Avon Transformer Oil" from the Tidewater Associated Oil Company in Tacoma for $2,021. "Running transformer oil" was purchased by the General Construction Company (the Shipyard's Construction Contractor) from the City of Tacoma on March 27 and 30, 1942. STSC purchased 3 "1000 Amp. A.C. Welding Transformers Comp." for $5,309 from Westinghouse Electric & Manufacturing Company in Seattle on March 15, 1942. On April 9, 1942, STSC purchased two used "5KVA 2200/440 volt outdoor type oil filled transformers" from Sundfelt Equipment Company. On April 13, 1942, STSC purchased 2 "5KVA outdoor type filled transformers" for $108 from Sundfelt Equipment Company. On February 18, 1943, STSC notified the Bureau of Ships of its need for its endorsement to purchase one "5000 KVA, 2400 volt, 480 volt, 3 phase transformer" and one "10,000 KVA, 13800 volt, 2400 volt 3 phase transformer" manufactured by General Electric Company, for a total cost of $24,976. An "Inventory of Facilities ... Acquired under U.S. Maritime Jurisdiction," at the Shipyard, prepared by Todd-Pacific Shipyards Inc. and dated February 7, 1945, (attached to Exhibit 158 hereto) listed under "Machinery and Equipment" the following transformers related to Maritime Commission contract DA MCc 12:

Classification or Marking No.	Quantity	Description	Costs
E12-1 to 43	43	200 KVA Single Ph. Transformers	28,302.60
E18-44 to 47	4	200 KVA 2300/220/110	2,672.00
23E12-48 to 53	6	333 KVA GE 2300/440 H.S. Trans.	7,113.78
23E12-117	1	200 KVA GE 2400/240/120	865.26

and the following items related to Contract MCc 1951:

Classification or Marking No.	Quantity	Description	Costs
18E12-54 & 55	2	5KVA 2200/440 V Trans.	105.84
18E12-56 & 57	2	200 KVA 2200/220/440 Trans.	1,205.40

(continued...)

transformers were located very close to the Hylebos Waterway. According to the 1941 Yard & Facilities Layout Map (Map 1) and the 1942 Sprinklered Risk Report Map (Map 2), "Transformer Houses" were located immediately adjacent to the Hylebos bulkhead line, one just east of the Shops Building and another southeast of the Paint and Oil Building, both within a thousand feet of the Hooker Plant property. Another transformer was located at the north end of Pier No. 3, where the Hylebos flows into Commencement Bay.[209] The 1942 Sprinklered Risk Report notes that the transformer houses were 1-story light-frame wooden

---

208(...continued)

E12-58 & 59	2	200 KVA type H60-2400V Trans. 120/240	1,657.10
18E12-60 to 62 incl.	3	2000 KVA 13800/2400 Trans.	11,217.00
E12-63 to 78 incl.	16	333 KVA 2400/480/240 Trans.	17,584.00
E12-79 to 86 incl.	8	200 KVA 2400/240/120 Trans.	6,144.00
E12-87 to 104 incl.	18	333 KVA 2400/480/240 Trans.	21,082.50
E12-105 to 110 incl.	6	200 KVA 2400/240/120 Trans.	5,053.75
E12-111 to 113 incl.	3	333 KVA 2400/4160Y 240/480 Trans. H-60	3,513.75
18E12-114 to 116 incl.	3	550 KVA 2400/220/1102 Trans.	2,100.00
13 E12-118	1	100 KVA GE 2200/220/110 Trans.	No Cost

209 Transformers were also located at the end of Outfitting Piers No. 1 and 2 (which stretch into Commencement Bay), at the south end of each of the eight shipways, adjacent to substations and elsewhere around the shipyard. See Maps 1 and 2.

structures.[210] Compressor houses were also located throughout the Shipyard.[211]

The 1942 Security Survey discusses security issues involving transformers, noting the following:

> The transformers are of oil-filled type and installations are not in accordance with provisions of the National Electric Code. This is particularly true of the secondary substation units located on outfitting wharves, under head end of shipways, and others adjoining structures of wooden construction. Transformers immersed in a liquid that will burn and located on or immediately adjoining combustible structures should generally be installed in a masonry vault having protected openings and door sill of a height to confine within the vault the oil from the largest capacity transformer. Accordingly, consideration should be given to providing proper vaults for transformers at unsafe locations, like at wharves and shipways where they constitute an exposure to vital structures, or to replacing them with ones having non-combustible dielectrics. New Outfitting wharf stations should be similarly treated if on the structure, or installed outdoor on solid ground at safe location and diked.

(emphasis added).[212]

On December 16, 1942, the Chief of the Bureau of Ships sent a memorandum to the Commandant of the Thirteenth Naval District on the subject of "Plant Protection" at the Shipyard. One of the items noted was: "There was no precaution against the danger of boiling over in the transformers on the wooden piers."[213]

---

210 1942 Security Survey, Exhibit C- Sprinklered Risk Report (Exhibit 1).

211 See Maps 1 and 2; 1942 Security Survey, Internal Security Recommendations at 4 (Exhibit 1).

212 1942 Security Survey, Internal Security Recommendations at 17 (Exhibit 1).

213 See Exhibit 160, attached hereto.

The Intern Report notes that a wartime employee of the Naval Shipyard in Bremerton stated in a telephone conversation that at naval shipyards, materials from transformers were typically dumped onto the ground or into the water before being replaced.[214]

A local newspaper article dated July 2, 1952 indicated that the Navy let a contract in 1952 to rebuild Piers 1, 2 and 3, "to replace damaged pilings," and to add "new heated pilings" and "new transformer vaults (515 and 1088 square feet respectively)," located near to the Paint Shop.[215]

The 1959 Study of Naval Industrial Reserve Shipyard lists 3 "Transformer Sheds" (Buildings numbered 574, 582 and 585, with floor areas of 294, 500 and 500 square feet respectively) located in the "ship repair" area of the Shipyard, which includes Piers 1, 2 and 3.[216] A 1958 Inventory[217] and a 1959 Inspection Report[218] of the Shipyard also reference the locations of transformers.

---

214 Intern Report at 5 (Exhibit 25).

215 See "$898,000 Pier Job Will Start Soon," Tacoma Reporter, July 2, 1952 (Exhibit 150). Other documents indicate that electrical feeders, conductors and transformers were replaced at the Shipyard circa 1950. See Memorandum from T.H. Kobey, Commanding Officer, U.S. Naval Station, Tacoma, to Chief, Bureau of Ships, dated July 17, 1950 (Exhibit 151); Memorandum from N. Sonenshein, Chief, Bureau of Ships, to Commanding Officer, U.S. Naval Station, Tacoma, dated August 10, 1950 (Exhibit 152); Memorandum from C.A. Berry, Commanding Officer, U.S. Naval Station, Tacoma, to Chief Bureau of Ships, dated October 16, 1950 (Exhibit 153).

216 See 1959 Study of Naval Reserve Shipyard at page 2-B 10 (Exhibit 149).

217 See "Inventory of Class III and Minor Property - U.S. Naval Industrial Reserve Shipyard, Tacoma," dated October 1, 1958 (hereinafter "1958 Shipyard Inventory") at pages 32-33, and the lists for Building 335, Building 341 and Building 397 (Exhibit 154).

218 See Memorandum from A.W. Merrifield, Realty Officer to The Files, dated January 29, 1959, enclosing an "Inspection Report, U.S. Naval Industrial Reserve Shipyard (hereinafter, the "1959 Inspection Report") (Exhibit 155). This report notes that the "storm and sanitary combination" sewer for the Shipyard is "connected to direct outfalls emptying into the adjacent waterways." Id. at Section V.2.

D. Solvent Use

The 1945 Health and Safety Survey indicates that considerable amounts of solvents were used at the Shipyard. In a "recommendations" section for the Shipyard, the Survey states:

> A solvent control program should be instituted. The safety department should make a survey of operations involving the use of solvents and chemicals (paints, thinners, paint removers, adhesive compounds, etc.), to evaluate the hazards of exposure to these substances and suggest methods of reducing the hazards; the medical department should become familiar with the possible effects of exposures and be prepared to recognize such symptoms. Production supervisors should notify the safety department of any new processes in which such substances will be used or of any change in the nature of the substances being used. The purchasing department should notify the safety department whenever these items are obtained from a new source, and an attempt should be made to determine its composition, if possible from the manufacturer, so that the new hazards may be anticipated and proper provisions made in advance.
>
> At the time of the present survey, carbon tetrachloride was being used widely in the yard without adequate recognition of the hazard of inhalation of vapors and usually without specific measures for the protection of employees. The electrical shop uses large quantities in cleaning motors, armatures, motor generators and such equipment, often spraying it without any respiratory protection (spraying in confined spaces necessitates the wearing of an air-line respirator; in open air a chemical cartridge respirator would be sufficient), and in washing ball bearings for the Lincoln welding machines -- an operation which is performed repeatedly indoors at a specified place, and for which a local exhaust booth should be provided. The outfitting machinists use large amounts for cleaning compressor valves and catapult gear - operations for which cheaper solvents should be satisfactory (for example, kerosene or Stoddard solvent, both of which are relatively non-toxic). The marine engineers use it for cleaning the oxygen transfer pump and air compressors, where non-flammable solvents are essential; in this case the important thing is that employees exposed to the vapors should know of the hazards and exercise discretion in handling it. The riggers use it for cleaning cable-ends in catapult rooms and elsewhere aboard ship, where it is said to be required by Navy

> regulations; in such places it is essential that the containers be kept covered to prevent unnecessary evaporation into the working atmosphere, and it should be removed from the ship when not in use, to prevent accidents to persons not aware of its nature. Users of smaller amounts are the antenna shop (for cleaning coaxial cables), the refrigeration department (for washing certain parts) and probably others. In addition some miscellaneous commercial preparations contain it, such as Hydrotex type cleaner, which is used in practically all offices in the yard, and Turco L-680 paint remover, which is consumed at the rate of about 30 gallons per month by painters and laborers. In each case the operation should be specifically authorized by the safety department.
>
> Such substances as carbon tetrachloride, benzene, turpentine, methanol (methyl alcohol, or wood alcohol) should never be issued to workmen in unlabelled or improperly labelled containers and an attempt should be made to prevent their being transferred to smaller containers such as coffee tins or soft-drink bottles which may mislead fellow workmen as to their contents. Acids and caustic solutions should be handled subject to the same precautions.[219]

From other World War II cases, we have learned that, by 1945, carbon tetrachloride was generally known to be a health risk. Perhaps, that is the reason that carbon tetrachloride received so much attention in the 1945 Health and Safety Report. We also learned that trichloroethylene (which was not believed to be a health hazard at the time) was greatly used nationwide during World War II as a degreaser. Possible locations for its use include the Paint and Oil Building (which, as noted above, had two degreasers on its 1945 inventory list), the Mold Loft Building (about 120 feet east of the Paint and Oil Building)[220], which contained a tool shop, the Shops Building, which contained a machine shop, the pipe shop, copper shop and weld shop, the Sheet Metal Shop Building (just west of the Shops Building), and

---

219 1945 Health and Safety Survey at 5-7 (Exhibit 4).

220 The Mold Loft Building was a large building where full-sized wooden patterns and templates for the ships' various sections were laid out. See "Making Patterns Big Preliminary Job in Fabricating Steel Freighters," The Tacoma Sunday Ledger, March 9, 1941 (Exhibit 136).

the two steel fabricating shops (west of the Mold Loft), where cold and hot metal-working and plate fabrication took place.[221]

E. The Thermit Building and Welding Slab

In the southeast corner of the Shipyard, immediately adjacent to the Hooker Plant and no more than 25 feet from the bulkhead line of the Hylebos Waterway was a small wooden shed known as the thermit building. Thermit and oakum were stored there. Thermit is a trademark used for a welding and incendiary mixture of fine aluminum powder with a metallic oxide, usually iron, that when ignited yields an intense heat. Oakum is loose hemp or jute fiber, sometimes treated with tar, creosote or asphalt, used chiefly for caulking seams of wooden ships and packing pipe joints.

The 1942 Security Survey[222] states:

> At time of inspection approximately 7 1/2 tons of thermit was in storage in a small wooden shed near the south end of outfitting wharf 3 at the southeast corner of the plant site. The shed also contained a small amount of oakum and was located adjoining the fence line, introducing the possibility of sabotage by a person familiar with the situation. It is recommended that a reinforced concrete vault without window openings and steel door locked when unattended be provided solely for the storage of thermit. The vault should either be diked with sand or the floor depressed below ground level to have a pit of capacity equal to that of the molten iron content of contemplated thermit storage to confine the molten iron and prevent damage to nearby equipment or structures if the thermit should ignite. While the vault would probably disintegrate if the large amount of thermit in storage should ignite,

---

221 The 1958 Shipyard Inventory notes the existence of an "acid tank" at the Shipyard. See 1958 Shipyard Inventory at 30 (Exhibit 154). The acid tank is listed along with painting equipment. Id. The same inventory shows a "degreasing tank" located at "Building 391," the Public Works Shop Building, which was close to Pier 4. Id. at List for Building 391. See, also, Map 12. A "cleaning tank" is inventoried to Building 580. Id. Building 580 was an Army Warehouse in 1958. See, also, Map 12. During World War II, it was listed as the Stores Department Building. See Map 1.

222 1942 Security Survey, Internal Security Recommendations at 56-57. (Exhibit 1). See, also, id. at 22-23, 29-30.

> it is believed a heavy reinforced concrete structure would have a restraining effect on the eruption. In any event, it would not be a contributing factor to the actual ignition like the present light wooden storage shed might.[223]

Just to the northwest of the thermit building, sitting atop Pier No. 3 (the wooden outfitting dock over the Hylebos[224] Waterway), was located the "stern frame assembling slab." On the slab, "large quantities of thermit welding" took place. In September, 1944, it was proposed to the Supervisor of Shipbuilding at Tacoma that the thermit welding operations be moved from Pier No. 3 to "an open storage area south of Eleventh Street on solid ground on the peninsula." A memorandum dated August 11, 1944, from O. A. Tucker, Vice President and General Manager of Todd-Pacific Shipyards, Inc. to the Supervisor of Shipbuilding, Tacoma, requested the Supervisor's "approval and endorsement" of the "proposal to relocate the existing Thermit Welding Operations," and gave the following reason:

> Location of the Thermite Welding Slab on Pier #3 represents a very serious fire hazard. The Thermite Welds being made in connection with the construction of CVE-105 vessels are of such a magnitude, that the hazard from fire has been increased many times over Thermite Welding previously done in this area for other types of vessels.

On August 22, 1944, J.L. McGuigan "approve[d] and endorse[d]" the proposal, stating that:

> Pouring large quantities of thermit material at a central location distracts workmen in surrounding areas. A mishap during a large pouring would mean serious loss of equipment and material and probably

---

223 A newspaper article dated November 23, 1945 reports that a workmen's shelter "located 100 yards from the plant's incinerator, in an isolated part of the yard" that was used to store "oakum, paint, grease, foamite, terminated patterns and refrigerator coils" perhaps the thermit building, exploded shooting flames "50 to 60 feet in the air" creating "clouds of black smoke." See "Topac Fire Damage Set at $25,000," The Tacoma Times, November 23, 1945 (Exhibit 156).

224 Various correspondence referenced in the paragraph in text regarding the thermit building are attached hereto as Exhibit 157.

> high personnel casualties. It is believed that the expense of moving is well warranted.

In an internal Navy memorandum dated September 25, 1944, among the following reasons given for the move was "[c]rane on outfitting dock causes slab to vibrate. This may or may not have been responsible for recent run out and loss of weld." (emphasis added). Presumably, any "weld" lost off of the slab ended up on the wooden pier and into the Hylebos below.

F. Other Disposals Into the Bay and Waterways

In addition to the potential for disposals into the Bay and Waterways by the Shipyard of paints, solvents, transformer oils, etc., the documents indicate that the Shipyard knowingly disposed of lime residue from acetylene generators and general sewage into the waters surrounding the Shipyard.[225]

The 1942 Security Survey provides:

> At present lime residue from acetylene generators is being satisfactorily disposed of at shore line along the west side of the plant, but when the new outfitting wharf is completed along the Wapato Waterway this location will not be conveniently available. The operator should be instructed to seek another safe location detached as far as possible from the wharves, and continue to use care in disposition. If lime residue is not spent, gas may be given off or heat generated on further slaking and under no circumstances should the residue be dumped into the underwharf areas.[226]

The documents did not indicate the new disposal locations for lime residue.

The 1943 Health and Safety Survey noted:

---

225 In addition, the Navy used barges in the waters surroundings the Shipyard to "steam-out" boilers of the newly-constructed ships. The barges had oil burners on them to "maintain steam pressure." In 1945, the Bureau of Ships recommended that the Shipyard use "residual oil" on the barges to conserve "distillate fuel oil" for other Navy needs. See various correspondence and memoranda attached hereto as Exhibit 159.

226 1942 Security Survey, Internal Security Recommendations at 25 (Exhibit 1).

> The disposal of sewage is by direct discharge into the bay and by the use of septic tanks. There are four septic tanks in the yard. One is no longer in use. The other three are connected to toilets in certain shop buildings and warehouses. All other toilets discharge directly into the bay. In some cases the outfall line is not below the low tide mark and the raw sewage is deposited onto the ground near where men are working. This occurs at the end of the new warehouse, and at three places on the shipways. A study of sewage disposal methods is being made by State of Washington and City of Tacoma Health Departments. Reports and recommendations shall be submitted.[227]

The 1944 Health and Safety Survey notes that as a result of the Health Department's study, the sewage outfall lines were lengthened.[228]

G. The Oil House

The Oil House was located about 200 feet to the northwest of the Paint and Oil Building and appears to have been a major source of oils and gasoline for the Shipyard. A railroad spur connected to a storage yard surrounding the Oil House. The yard around the Oil House is a potential source of contamination.[229] The 1942 Security Survey states:

> At the time of inspection several barrels of gasoline, diesel oil, machine oil, etc. were stored outside of the oil house and the large number of drums of stove oil and other flammable liquids were observed at various other locations on the plant site. All quantity storage of flammable liquids, including

---

227 1943 Health and Safety Survey at 28 (Exhibit 2).

228 1944 Health and Safety Survey at 6 (Exhibit 3).

229 Without identifying precise locations, the 1942 Security Survey makes various references to "petroleum gas storage tanks," "oil storage areas," "flammable liquids storage facilities," "oil piping lines," "petroleum gas cylinders," etc. located at the Shipyard. See 1942 Security Survey, Internal Security Recommendations at 4, 25-26, 28-29 (Exhibit 1). An "Inventory of Facilities at Todd-Pacific Shipyards, Inc., Tacoma, Washington, acquired under U.S. Maritime Jurisdiction, dated February 7, 1945 ("1945 Maritime Commission Inventory") (at page 8) lists under Contract MCc 1951 "2 #6 Ray Fuel Oil Burners" and a "2500 gallon Fuel Oil Tank" (Exhibit 158).

> lubricating oils, should be stored under lock and key in the central oil house. Approved small safety cans should be obtained and used to transport these liquids between the oil house and where used. The entire storage distribution should be carefully supervised to prevent so far as practical unauthorized persons obtaining flammable liquids on the premises, because they are of assistance in sabotage attempts by fire.[230]

There are also indications of sloppy transport of oil around the Shipyard in inappropriate containers.[231]

H. General Housekeeping

There are indications that general housekeeping with respect to contaminants and other debris was not of high standards at the Shipyard. The 1942 Security Survey states:

> The number of approved metal oily waste cans now distributed, principally in the steering gear, paint storage and engine room compartments, is insufficient and should be increased to a number adequate to service all areas where oil or paint soaked rags may be present. These cans should be emptied regularly and the practice of placing paint or oil soaked rags in the rubbish boxes postponed until such time as the boxes are to be actually removed from hulls.[232]

The Survey also reports:

> Housekeeping conditions beneath the assembly platforms, both at the ways and within the steel shops, and also underneath the bending slabs, were unsatisfactory at the time of inspection. Employees seemed to use these

---

230 1942 Security Survey, Internal Security Survey Recommendations at 29 (Exhibit 1).

231 The 1942 Security Survey notes that "[d]iesel oil for the [on-ship] furnaces should be transported to and from the oil warehouse in approved flammable liquid safety cans and use of the present light metal cans without caps or outlets discontinued." 1942 Security Survey, Internal Security Recommendations at 36. See, also, id. at 28.

232 1942 Security Survey, Internal Security Recommendations at 35 (Exhibit 1).

> spaces to dispose of debris from their lunch boxes and other materials; the matter of keeping these areas clean including those beneath the craneways, shipways and wharves is one requiring constant vigilance and strict regulation.[233]

A December 16, 1942 memorandum on "Plant Protection" at the Shipyard from the Chief of the Bureau of Ships to the Vice Chief of Naval Operations noted that "disposal of rubbish was not efficient. A large accumulation was noted between the bases of outfitting docks one and two and another in the southeast corner of the yard" and "combustible material was stacked in the immediate proximity to the legs of the north water tower."[234] The location "in the southeast corner of the yard" corresponds with the 1936 and 1946 aerial photographs revealing the Shipyard's disposal of debris into the Hylebos from the property leased from Hooker during the war. A 1942 memorandum from the Commandant of the Thirteenth Naval District to the Chief of the Bureau of Ships noted that "[b]etter arrangements should be made for the disposal of rubbish. The practice of letting it accumulate in high piles in the immediate vicinity of welding operations and nearby flimsy temporary structures should cease."[235]

The Intern Report also makes reference to generally poor housekeeping. The employees interviewed noted that waste management practices were almost non-existent, disposal systems primitive and that much waste went into the surrounding waters.[236]

I. Shipyard Activities On The Hooker Property

As noted above, the Navy leased the northern portion of the Hooker Plant property during the war. The documents show that in

---

233 1942 Security Survey at 29 (Exhibit 1).

234 Memorandum from Chief of the Bureau of Ships to the Commandant, Thirteenth Naval District, dated December 16, 1942 (Exhibit 160); Internal Memorandum, Bureau of Ships, dated December 3, 1942 (Exhibit 161).

235 Id. at paragraph 4 (Exhibit 161).

236 See Intern Report at 4 (Exhibit 25). According to former Shipyard employees, launching lubricants, used for the launching of completed hulls, were allowed to run into the waters of Commencement Bay. The 1942 Sprinklered Risk Report recommends that the Shipyard "[d]iscontinue use of wood fired kettle for melting lubricants for launching skids." 1942 Security Survey, Exhibit G - Sprinklered Risk Report. (Exhibit 1 hereto).

addition to the parking lot, the leased plot was used as a scrap disposal and salvage yard.[237] Also, the maps show that an incinerator[238] was located in the yard, no more than 50 feet from the Hylebos Waterway.[239] A "rag storage building" was also located there.[240]

A 1959 Naval Study of the Shipyard notes "the Government holds an agreement dated February 13, 1948 authorizing the Government to maintain, operate, repair and remove . . . a sewer line with necessary manholes and grease trap across a strip of land and 15' in width paralleling the northwesterly line of the Hooker Co. property for a distance of not more than 450' from the north westerly corner of said property."[241]

---

237 See note 240, infra.

238 See Map 6. The incinerator on the Hooker Property is referenced in an attachment to a letter from Harry Hill, Esquire to the Department of the Navy, dated July 28, 1944 regarding a lease modification (Exhibit 162). See, also, supra note 71 (Exhibit 64). An "incinerator" valued at $1,934.63 is listed on a February, 1945 "Inventory of Facilities at Todd Pacific Shipyards, Inc., Tacoma, Washington." (Exhibit 158, at page 1). However, a Memorandum dated January 15, 1946, discussing the salvage value of facility items located on the property leased by Todd Pacific from Hooker, fails to list the incinerator. See Memorandum from R.J. Lamont to Supervisor of Shipbuilding, Tacoma, Washington, dated January 15, 1946 (Exhibit 163).

239 Another Shipyard incinerator was located south of the Hooker Plant, near the Navy Commissioning Pier, in a steel storage yard about 75 feet from the Hylebos. See Map 6. Between the Navy Commissioning Pier and the Hooker Plant were two properties -- the Fletcher Oil Company and the Maxwell Petroleum Corporation. According to the 1942 Security Survey, the Fletcher property had a fuel oil tank farm of 60,000 barrels capacity and the Maxwell property a farm of 108,000 barrels capacity. See 1942 Security Survey, Passive Defense Recommendations at 9 (Exhibit 1). Also, on a 1958 General Services Administration inventory of facilities of the Shipyard (in preparation for the sale of the Shipyard) an incinerator was listed located at "Building 118", with outside dimensions of 10 feet by 8 feet and valued at $1,100. (Exhibit 154). Building 118 is identified on Map 12 as the "Trash Burner". It was located south of Eleventh Street and West of Alexander Avenue.

240 See attachment to Letter from Harry Hill to the Department of the Navy, dated July 28, 1944 (Exhibit 162); See, also, Map 6.

241 1959 Study of Naval Industrial Reserve Shipyard at 2-A 1 (Exhibit 147).

J. The Navy's Report On The Pollution Of The Harbor

At the end of the war, in 1945, the Navy decided to use the Shipyard for berthing aircraft carriers as part of the post-war Reserve Fleet. A Congressman inquired whether the Tacoma Harbor was so polluted that it might endanger hulls of the ships. The Chief of the Bureau of Ships requested that the Commandant for the Thirteenth Naval District prepare a report on the matter, which we have not yet located.[242]

A memorandum dated February 6, 1947 to the Commandant, Thirteenth Naval District, from the General Inspector of the same naval district reports on "the possibility of pollution of city's fresh water system by Reserve Fleet vessels moored at the Naval Station, Tacoma, through fire hose connections to the dock."[243]

The documents indicate that the Navy did sediment sampling of Commencement Bay as early as the year 1952. A Thirteenth Naval District route slip dated July 10, 1952 lists as its subject: "Harbour Pollution; comments on" and "Encl: Photographs of oil contamination in Commencement Bay; Oil Analysis from P.S.N.S.; Sludge Barge Print #293; Harbor Chart on Commencement Bay."[244] Another Thirteenth Naval District "route slip", dated June 12, 1952 lists as its subject "re: Laboratory test results on a sample of sand delivered to this lab from Tacoma."[245]

---

242 See Letter from E.L. Cochrane to Honorable Harry R. Sheppard, Dated February 8, 1946 (Exhibit 164).

243 Memorandum from C.D. Emory, General Inspector, Thirteenth Naval District, to the Commandant, Thirteenth Naval District, dated February 6, 1947 (Exhibit 165).

244 See Exhibit 166. Unfortunately, no documents were found attached to this route slip.

245 See Exhibit 167. No documents were attached. See, also, Route Slip dated August 5, 1952 (identifies "Subject" as "U.S. Naval Station, Tacoma, Washington - Sitcum Waterway Pollution.") (Exhibit 168).

V. SUMMARY

The documents we have reviewed to date indicate that during World War II the United States, acting through the Maritime Commission and the Navy, had extensive and intertwined ownership interests in the land and improvements and owned virtually all of the materials, equipment and supplies used at the Shipyard. It follows that the Government also owned the wastes produced by the Shipyard.

The documents also establish the Navy's status as a CERCLA "operator" and "arranger" for disposal during the war, as evidenced by the Navy's large personnel contingent stationed at the Shipyard, the various contracts and memoranda indicating the necessity of the endorsement or approval by the Navy of changes to virtually all significant activities at the Shipyard (including many waste disposal activities), the Navy's control of security and safety at the Shipyard, etc. The documents strongly support a case that the Navy did, indeed, "acquire control" of the Shipyard in 1942 (as stated in the Supervisor of Shipbuilding's history) and, as part of the war effort, exercised pervasive control over commercial shipbuilding activities.

The documents indicate, that large amounts of hazardous substances were disposed of at or from the Shipyard that made their way to the sediments at the Mouth of the Hylebos. There are strong indications that extensive disposal of hazardous substances took place in connection with painting operations and solvent and petroleum use. Many of the other activities addressed in this report produced other types of contaminants. The connection of the Shipyard's sewer system directly into the Hylebos Waterway provided the pathway for many types of hazardous substances to be transported to the locations of concern.

Sincerely

Larry Silver
for DUANE, MORRIS & HECKSCHER

LDS:js
PH2\76547.1

MAP INDEX

MAP NO.	DESCRIPTION
#1	A map of the Shipyard dated October 20, 1941 titled "Yard and Facilities Layout," which contains useful information such as the locations of catch basins, drainspouts and sewer lines and their outfalls into the Hylebos and Wapato Waterways and Commencement Bay,
#2	A map of the Shipyard dated March 25, 1942, prepared as part of a "Sprinklered Risk Report" by the Washington Surveying and Rating Bureau.
#3	A map of the Shipyard dated October, 1945, which includes a building key and identifies by a legend (probably added in 1946) of color codes showing areas of the Shipyard pertaining to ship construction activities, Naval Station and berthing activities, etc.
#4	A 1916 area-wide topographical map prepared by the U.S. Coast and Geodetic Survey, which shows the Shipyard area in a pre-developed condition.
#5	A June, 1919 "Property Map of Todd Dry Dock and Construction Corporation," showing the World War I-era Shipyard's layout.
#6	A November 25, 1943 "Plot Plan, Todd Pacific Shipyards, Inc. Tacoma Division" showing in detail the layout of the Shipyard following additional construction activities under the guidance of the U.S. Navy during the "War Emergency" following Pearl Harbor.
#7	A June 1, 1947 "Map Showing Proposed Berthing, U.S. Naval Station, Tacoma, Washington," with the names and locations of berthed ships shown.
#8	A June 30, 1947 "Map of U.S. Naval Station, Tacoma, Washington," with building key.
#9	A June 30, 1947 "Property Map" of the Shipyard "Showing Parcels Forming U.S. Naval Station, Tacoma, Washington."
#10	A 1954 map of the "U.S. Naval Station, Tacoma, Washington" as part of a "General Development Plan" and "Showing Conditions as of 30 June 1954."

MAP NO.	DESCRIPTION
#11	A map dated July 25, 1956 showing the "Existing Plan Layout" of the "Naval Industrial Reserve Shipyard, Tacoma, Washington."
#12	A 1957 map of the "U.S. Naval Station, Tacoma, Washington" as part of a "General Development Plan" and "Showing Conditions as of 31 December 1957."
#13	A September 1, 1961 Port of Tacoma area-wide map titled "General Plan, Port Industrial Development District."